

# ADDITIONAL NOTES ON THE GENUS AEGIPHILA. XVIII

Harold N. Moldenke

AEGIPHILA Jacq., Obs. Bot. 2: 3, pl. 27. 1767.

Partial emended synonymy: Aegiphila L., Pflanzensyst. 3: 124. 1773; A. L. Juss., Gen. Pl. 107. 1789. Manabea Aubl., Hist. Pl. Guian. 1: 61. 1775. Aegyphila Jacq. apud Planer, Gatt. Pfl. 1: 87—88 (1775) and 2: 1050. 1775. Aegiphila Sw., Nov. Gen. & Sp. Pl. Prodr. 31, sphalm. 1788. Manabaea Aubl. ex J. F. Gmel. [ed. Turton] in L., Gen. Syst. Nat. 5: 219, in syn. 1802. Omphalococca Willd. ex Roem. & Schult., Mant. 3: 10. 1827. Aegephila Vell., Fl. Flum. Icon. 1: 89, sphalm. 1827. Aegiphyla L. apud Steud., Nom. Bot., ed. 2, 1: 29. 1840. Amerina P. DC., Prodr. 9: 512—513. 1845 [not Amerina Noronha, 1790, nor Raf., 1838]. Distigma Klotzsch ex Walp., Repert. Bot. Syst. 4: 123, in syn. 1845. Brückea Klotzsch & Karst. in Karst., Ausw. Neu. Gew. Venez. 31. 1848. Bruckea Klotzsch & Karst. ex Bocq., Adansonia, ser. 1, 2: 83 & 130. 1862. Aegiphyla Steud. ex Pfeiffer, Nom. Bot. 1 (1): 64, in syn. 1873. Brueckia Klotzsch & Karst. apud Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46, in syn. 1893. Brueckea Klotzsch & Karst. apud Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 345, in syn. 1893. Brueckia Karst. ex Briq. in Engl. & Prantl, Nat. Pflanzenfam. 4 (3a): 116, in syn. 1895. Manabaea Hedw. f. apud Dalla Torre & Harms, Gen. Siphon. 432, in syn. 1900. Aegophila Jacq. apud Post & Kuntze, Lexicon 11. 1904. Pseudaegiphila Rusby, Mem. N. Y. Bot. Gard. 7: 339. 1927. Aegiphila Jacq. ex Moldenke, Brittonia 1: 250, in syn. (obs.) 1934; Prelim. Alph. List Invalid Names [1], in syn. 1940. Manabca Aubl. apud J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 711, sphalm. 1960. Aegophila P. & K. apud Airy Shaw in Willis, Dict. Flow. Pl., ed. 7, 26, in syn. 1966. Omphalococca "Willd. ex Schult." apud Airy Shaw in Willis, Dict. Flow. Pl., ed. 7, 794, in syn. 1966. Aegiphilla Briq. ex Moldenke, Résumé Suppl. 13; 6, in syn. 1966.

Additional & emended bibliography: Jacq., Obs. Bot. 2: 3, pl. 27. 1767; [Retz.], Nom. Bot. 35 & [280]. 1772; Planer, Gatt. Pfl. 1: 87—88 (1775) and 2: 1050. 1775; Reichard in L., Gen. Pl., ed. 8, 61. 1778; Sw., Nov. Gen. & Sp. Pl. Prodr. 31—32. 1788; J. F. Gmel. in L., Syst. Nat., ed. 13, pr. 1, 2: 259. 1789; Schreb. in L., Gen. Pl., ed. 8 [9], 1: 73 (1789) and 2: [841]. 1791; Haenke in L., Gen. Pl., ed. 8 [10], 1: 105 (1791) and 2: [789]. 1791; Lam., Tabl. Encycl. Méth. Bot. 1: pl. 70, fig. 1—3, & 71. 1791; J. F. Gmel. in L., Syst. Nat., ed. 13, pr. 2, 2: 259. 1796; Raensch., Nom. Bot., ed. 3, 36—37 & [377]. 1797; Bosc, Nouv. Dict. Hist. Nat., ed. 1, 1: 114. 1803; Desf., Tabl. Ecol. Bot., ed. 1, 53 (1804) and ed. 2, 64 & 250. 1815; Bosc, Nouv. Dict. Hist.

Nat., ed. 2, 1: 174. 1816; Poir. in Cuvier, Dict. Sci. Nat. 1: 267 (1816) and 6: 25. 1817; Pers., Sp. Pl. 1: 339 & 342. 1817; H. B.K., Nov. Gen. & Sp. Pl., ed. quarto, 2: pl. 130 & 131 (1817), ed. folio, 2: 201—204 (1817), ed. folio, 3: [51]—52, pl. 208 & 209 (1818), and ed. quarto, 2: 248—251 (1818) and 3: [65]—66, pl. 208 & 209. 1818; Roem. & Schult. in L., Syst. Veg., ed. 15 [Stuttg.], 3: 95—96, 100—103, & [535] (1818) and 4: 698. 1819; J. A. Schult. in Roem. & Schult., L. Syst. Veg., ed. 15 [cont.], 1: 95—97 & [311]. 1820; Steud., Nom. Bot. Phan., ed. 1, 16 & 137. 1821; Spreng. in L., Syst. Veg., ed. 16, 1: 29, 419, 421, 647, & 648 (1825) and 5: 126. 1828; Kunth, Vier Bot. Abhandl. [14]—16. 1832; D. Dietr., Syn. Pl. 1: 429—430 & 630—631. 1839; Steud., Nom. Bot., ed. 2, 1: 29 & 543. 1840; Paxt., Pock. Bot. Dict., ed. 1, 8. 1840; Voigt, Hort. Suburb. Calc. 464. 1845; Benth., Bot. Voy. Sulphur 154. 1846; M. R. Schomb., Reisen Brit.-Guian. 3: [Vers. Fauna & Fl. Brit.-Guian.] 959 & 1150. 1848; Paxt., Pock. Bot. Dict., ed. 2, 8. 1849; Schau. in Mart., Fl. Bras. 9: 278—290 & [309]—311. 1851; W. Griff., Notul. 4: 173. 1854; Schnitzl., Icon. Fam. Nat. Reg. Veg. 137. 1856; Bocq., Adansonia, ser. 1, 2: 83, 84, 86, 109, 111, 113, 115, 117—119, 121, 125, 126, 128, 130, 131, 141, 143—145, 154, 155, 160, & 161 (1862) and 3: 180, 182, 183, 187—190, & 194, pl. 9, fig. 1—14, & pl. 10. 1863; Bocq., Rév. Verbenac. 83, 84, 86, 109, 111, 113, 115, 117—119, 121, 125, 126, 128, 130, 131, 141, 143—145, 154, 155, 160, 161, 178, 180, 182—184, 187—190, 192, 194, & 264, pl. 9, fig. 1—14, & pl. 10. 1863; Pfeiffer, Nom. Bot. 1 (1): 64 (1873) and 1 (2): 1834. 1874; Scheffer, Ann. Jard. Bot. Buitenz. 1: 43. 1876; Vesque, Ann. Sci. Nat. Paris, sér. 7, 1: 335. 1885; A. S. Hitchc., Ann. Rep. Mo. Bot. Gard. 4: 118. 1893; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46—47, 106, 345, 386, & 823 (1893) and pr. 1, 2: 131, 160, 320, & 341. 1894; Solered., Syst. Anat. Dicot. 712, 715, & 716. 1894; Durand & Jacks., Ind. Kew. Suppl. 1, pr. 1, 13. 1901; Barnhart, Bull. Torrey Bot. Club 29: 590. 1902; T. Peckolt, Bericht. Deutsch. Pharm. Gesell. 14: 478—480. 1904; Briq. in Chod. & Hassler, Bull. Herb. Boiss., ser. 2, 4: 1166—1169. 1904; Thiseit.-Dyer, Ind. Kew. Suppl. 2: 4 & 43. 1904; Hayek in Engl., Bot. Jahrb. 42: 172. 1908; D. H. Scott in Solered., Syst. Anat. Dicot., transl. Boodle & Fritsch, 1: 630, 631, & 634. 1908; Solered., Syst. Anat. Dicot. Ergänz. 255. 1908; Ramírez Goyena, Fl. Nicarag. 1: 566—567. 1911; Prain, Ind. Kew. Suppl. 4, pr. 1, 5. 1913; Donn. Sm., Bot. Gaz. 57: 425—426. 1914; Anon., Arnold Arb. Publ. 6 [Cat. Lib. Arnold Arb.] 342. 1917; Prain, Ind. Kew. Suppl. 5, pr. 1, 6. 1921; Stevens, Ann. Mycol. 26: 208. 1928; G. Klein, Handb. Pflanzenanal. 2 (1): 530 & 532. 1932; A. W. Hill, Ind. Kew. Suppl. 8: 5. 1933; F. C. Hoehne, Resen. Hist. Secc. Bot. Agron. Inst. Biol. S. Paulo 153 & 157. 1937; Sampaio, Bol. Mus. Nac. Rio Jan. 13: 284. 1937; Fedde in Just, Bot. Jahresber. 57 (2): 708. 1938; Fedde & Schust. in Just, Bot. Jahresber. 57 (2): 400. 1938; A. W. Hill, Ind. Kew. Suppl. 9: 5—6, 41, & 204. 1938; Sandw., Kew Bull. Misc. Inf. 1938: 373. 1938; Fedde & Schust. in Just, Bot. Jahresber. 59 (2): 416 (1939), 59 (2): 482 (1940), and 60 (2): 567—569. 1941; Wangerin & Krause in Just, Bot. Jahresber. 60

- (1): 633 & 754 [372]. 1941; Durand & Jacks., Ind. Kew. Suppl. 1, pr. 2, 13. 1941; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 46—47, 106, 345, 386, & 823 (1946) and pr. 2, 2: 131, 160, 320, & 341. 1946; Hill & Salisb., Ind. Kew. Suppl. 10: 5. 1947; Le Cointe, Amaz. Bras. III Arv. & Plant. Uteis, ed. 2, 147, 154, 370, 487, & [497]. 1947; Hansford, Proc. Linn. Soc. Lond. 160: 134. 1948; Metcalfe & Chalk, Anat. Dicot. 1033, 1035, 1037, 1040, & 1041. 1950; Moldenke, Bol. Mus. Nac. Rio Jan., new ser., Bot. 12: 1—2 & [5]. 1950; Reitz, Sellowia 3: 72. 1951; Moldenke, Mutisia 6: 3—4. 1952; E. J. Salisb., Ind. Kew. Suppl. 11: 5. 1953; Asprey & Robbins, Ecol. Monog. 23: 374 & 411. 1953; Ciferri, Mycopathologia 7: 180. 1954; Moldenke, Biol. Abstr. 28: 2902, 3057, & 3532. 1954; Moldenke, Phytologia 5: 95 & 96 (1954) and 5: 151—153. 1955; Anon., Bull. Torrey Bot. Club Index Vol. 1—75, p. 71. 1955; Michalowski, Serv. Tecn. Interam. Coop. Agr. Bol. 189. 1955; Moldenke, Phytologia 5: 368. 1956; Moldenke, Inform. Mold. Set 51 Spec. [1]. 1956; Chittenden, Dict. Gard. 505. 1956; Rambo, Sellowia 7: 207. 1956; Uribe, Mutisia 25: 23. 1956; Anon., Commonw. Mycol. Inst. Ind. Fungi Petrak Cum. Ind. 2: 279. 1957; Barroso, Rodriguésia 32: [69] & 71. 1957; Hansford, Sydowia 10: 46. 1957; Vélez, Herb. Angiosp. Lesser Ant. 116. 1957; Veloso & Klein, Sellowia 8: bet. 124 & 127, bet. 140 & 141, bet. 174 & 175, 187, & 220. 1957; Moldenke, Phytologia 5: 484 & 508 (1957) and 6: 232, 242, 254, & 323. 1958; Anon., U. S. Dept. Agr. Bot. Subj. Index 15: 14353. 1958; Cuatrecasas, Revist. Acad. Colomb. Cienc. 10: 232, 236, 244, & 246. 1958; Prain, Ind. Kew. Suppl. 4, pr. 2, 5. 1958; Moldenke, Phytologia 6: 508. 1959; J. Hutchinson, Fam. Flow. Pl., ed. 2, 2: 395. 1959; Anon., Kew Bull. Gen. Index 1929—1956, p. 5. 1959; Veloso & Klein, Sellowia 10: bet. 28 & 29, bet. 50 & 51, bet. 94 & 95, & 105. 1959; Durand & Jacks., Ind. Kew. Suppl. 1, pr. 3, 13. 1959; G. Taylor, Ind. Kew. Suppl. 12: 4. 1959; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 610, 611, & 701—704. 1960; Thirumalachar, Mycologia 52: 689—690. 1960; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 3, 1: 46—47, 106, 345, 386, & 823 (1960) and pr. 3, 2: 131, 160, 320, & 341. 1960; Prain, Ind. Kew. Suppl. 5, pr. 2, 6. 1960; Hansford, Sydowia Ann. Myc., ser. 2, Beih. 2: 687, 690, & 691. 1961; Elohms, Poison. Pl. Venez. 90. 1962; Burkart, Excerpt. Bot. A.5: 586. 1962; Hocking, Excerpt. Bot. A.5: 455. 1962; Veloso & Klein, Sellowia 15: 104 & 109. 1963; Melchior in Engl., Syllab. Pflanzenfam., ed. 12, 2: 435. 1964; Angely, Fl. Anal. Paran., ed. 1, 579. 1965; Gooding, Loveless, & Proctor, Fl. Barbados 354—355. 1965; Liogier, Rhodora 67: 350. 1965; Teague, Anal. Mus. Hist. Nat. Montev., ser. 2, 7 (4): 44. 1965; D. R. Harris, Univ. Calif. Publ. Geogr. 18: [Pl. Anim. & Man Outer Leeward Isls.] 44 & 151. 1965; F. A. Barkley, List Ord. Fam. Anthoph. 76, 136, & 201. 1965; A. María, Pl. Valle Cochabamb. 2: 41. 1966; Airy Shaw in Willis, Dict. Fl. Pl., ed. 7, 25, 26, 50, 160, 691, 794, & 925. 1966; J. A. Steyerma., Act. Bot. Venez. 1: 18, 19, 48, 52, 73, 90, 92, 101, & 170. 1966; Gómez Pompa, Estud. Bot. Reg. Misantla 93. 1966; Anon., Gen. Costa Ric. Phan. 10. 1966; Fournier, Imp. Tree Fam. Costa Ric. 13. 1966; Moldenke, Résumé Suppl. 14: 2 & 5—7.

1966; Moldenke, *Phytologia* 13: 318--319, 401, 427, 428, 431, 476, 497, & 507 (1966), 14: 244 & 245 (1967), and 15: 237. 1967; Dandy, *Reg. Veg.* 51: [Ind. Gen. Vasc. Pl.] 24 & 121. 1967; Rendle, *Classif. Flow. Pl.*, ed. 2, 2: 504. 1967; Stafleu, *Tax. Lit.* 256. 1967; Moldenke, *Résumé Suppl.* 15: 3, 4, & 15. 1967; Hocking, *Excerpt. Bot. A.11:* 504. 1967; Acosta-Solis, *Divis. Fitogeogr. Ecuad.* 45, [79], & 112. 1968; Aristeguieta, *Act. Bot. Venez.* 3: 34. 1968; J. A. Steyerma., *Act. Bot. Venez.* 3: 72 & 156. 1968; Veloso & Klein, *Sellowia* 20: 83, 124, 145, 152, & 178. 1968; Stearn, *Humb. Bonpl. Kunth Trop. Am. Bot.* 16. 1968; Uphof, *Dict. Econ. Pl.*, ed. 2, 13, 338, & 541. 1968; Moldenke, *Biol. Abstr.* 49: 4199 (1968) and 49 (9): S.5 & S.69. 1968; Moldenke, *Résumé Suppl.* 16: 2--5, 14, 15, & 24 (1968) and 17: [1], 2, & 12. 1968; Angely, *Fl. Anal. & Fitogeogr. Est. S. Paulo*, ed. 1, 1: 8. 1969; Anon., *Torrey Bot. Club Ind. Am. Bot. Lit.* 3: 304, 306--308, & 310. 1969; Farnsworth, Blomster, Quimby, & Schermerh., *Lynn Ind.* 6: 263. 1969; Lasser, *Act. Bot. Venez.* 4: 48. 1969; Liogier, *Fl. Cub. Supl.* 124. 1969; Moldenke, *Biol. Abstr.* 50: 6948 & 7999. 1969; Moldenke, *Phytologia* 18: 209 & 503. 1969; A. L. Moldenke, *Phytologia* 18: 113. 1969; Angely, *Fl. Anal. Fitogeogr. Est. S. Paulo*, ed. 1, 2: ~~xxx~~ (1970) and 4: 818, 826, & 1. 1970; Dennis, *Kew Bull. Addit. Ser.* 3: 258 & 289. 1970; El-Gazzar & Wats., *New Phytol.* 69: 469, 473, 483, & 485. 1970; Gibson, *Fieldiana Bot.* 32: 176. 1970; Goodland, *Phytologia* 20: 78. 1970; Lasser, *Act. Bot. Venez.* 4: 48. 1970; Oberwinkler, *Pterid. & Sperm. Venez.* 9 & 78. 1970; Reitz, *Sellowia* 22: 8. 1970; Soukup, *Raymondiana* 3: 26 & 37. 1970; Anon., *Biol. Abstr.* 52 (6): B.A.S.I.C. S.7. 1971; Dwyer, *Raymondiana* 4: 70. 1971; Fryxell, *Biol. Abstr.* 52: 3079. 1971; Hocking, *Excerpt. Bot. A.18:* 444. 1971; Moldenke, *Phytologia* 20: 488 & 503 (1971) and 22: 6, 28, 281, & 290. 1971; C. D. Adams, *Flow. Pl. Jam.* 627, 634--635, & 800. 1972; Moldenke, *Fifth Summ.* 1: 4, 5, 9, 27, 66, 78, 81, 82, 84--87, 89, 92, 94, 99, 100, 102, 104, 106, 107, 109, 111, 113--115, 121, 122, 129, 131, 133--135, 137--139, 144--147, 180, 181, 184, 188, 194, 354, 377--385, 389, 401, 402, 407--410, 430, 440, 441, 450, 461, 471, & 477 (1971) and 2: 491, 533, 569, 570, 574, 576, 593, 595, 614, 633, 717, 739--744, 757, 765, 767, 786, 791--793, 844--848, 967, 968, & 972. 1971; Moldenke, *Phytologia* 23: 314--315, 415--418, 427, & 503. 1972; A. L. Moldenke, *Phytologia* 23: 318 & 319. 1972; Anon., *Biol. Abstr.* 54 (7): B.A.S.I.C. S.8 & S.280. 1972; Moldenke, *Biol. Abstr.* 54: 3421. 1972; Moldenke, *Phytologia* 25: 220, 227, 228, 235, 236, 238, & 240--242. 1973.

In addition to the synonyms listed above there are 15 more variations in spelling and/or accreditation of the name Aegiphila, 2 of Bruckea, and one of Stigmatococca which have been recorded by me in various of my previous publications.

LeCointe (1947) records the vernacular name "cipó pitomba" for an unidentified member of this genus, the name "urua-rana" for another species found on the Rio Trombetas whose wood is "Branco pardacento, fibroso, tenra e muito leve", the name "pau-de-moqueum" for still another species found at Aveiros and which is used in



popular medicine "contra as mosestias dos brônquios....vomitério". Planer (1775) uses the name "Lattenstrauch" for this genus, while Bosc (1803) employs the French name "aegiphile" and its variant "égiphyle".

According to Blohm (1962) Lasser collected an unidentified species of this genus in Caicara where it is known as "borracha". Natives claim that pigs dig for the roots of this plant for food, but when horses and donkeys dig for it and eat it they become "borrachera" or intoxicated.

It should be noted here that the original publication of the accepted generic name by Jacquin (1767) was erroneously dated "1764" by me in my 1934 work on this genus — this being the date of part one of Jacquin's publication, rather than of part two. Jackson, in the "Index Kewensis" (1893), credits the genus to "Jacq. Stirp. Am. t. 16" (1763), but the name does not occur in that work, where plate 16 and the corresponding text pages 24—25 refer to and illustrate Myginda uragoga in the Celastraceae, which Stapf in the "Index Londinensis" (1929) correctly cites to "Jacq. Sel. Stirp. Amer. Hist. t. 16 (1763)" and which Jackson also cites to "Jacq. Select. Am. 24. t. 16."

The Bentham (1846) reference given in the bibliography above is often erroneously dated "1844", but the page involved here was not actually published until 1846. The H.B.K. reference dates given in the same bibliography were authenticated by Barnhart (1902).

In some works there is a reference to "R. & S. 2: 82. 1820" for this genus, but this seems to be erroneous; there is no mention of this genus on page 82 of the 1820 edition of Roemer & Schultes' work. It should also be noted here that the Hansford (1955) work is sometimes erroneously cited as Vol. "10" or "0".

Barkley (1965) lists Pseudaegiphila Rusby among the valid genera of Verbenaceae, but in my opinion it does not differ sufficiently to warrant its segregation from Aegiphila. Airy Shaw (1966) asserts that there are 160 species in Aegiphila from tropical America and the West Indies and also accepts Pseudaegiphila as a valid genus. Actually, as of now, there are 181 specific and infraspecific taxa accepted in the genus.

Ramírez Goyena (1911) gives an interesting description of Aegiphila as he knew it in Nicaragua: "Flores, por aborto, generalmente diclines, dióicos ó polígamas. Cáliz ciatiforme, acampanado ó aponzado-tubuloso, 4-fido, 4-dentado ó trunco. Corola embudada, asalvillada, excediendo algunas veces el tubo del cáliz y otras subigual, limbo 4-partido, igual. Estambres 4, iguales, exsertos en las flores masculinas y con las anteras bifidas hasta la base y celdas paralelas; en las flores femeninas filamentos breves é inclusos. Ovario 4-locular, cavidades uniovuladas. Estilo terminal, capilar, bifido, en la flor hembra exerto, en la flor masculina incluso; estigmas con los brazos agudos. Drupa jugosa ó carnosa, epicarpio liso, con 4 pirenas ó generalmente 1—2 por aborto, huescillos distintos uniloculares, oseos, coriáceos y con la base perforada. Semilla derecha, radícula infera

breve. Arboles ó frutices algunas veces volubles con glándulas puntiformes que segregan un aceite etéreo. Ramitas generalmente opuestas y tetragonas. Hojas opuestas ó verticiladas, simples y generalmente enterísimas, por debajo glandulosas con peciolo articulado cerca de la base. Cimas tricótomas ó axilares ó en penículas superiores, en las flores masculinas generalmente flojas, y en las femeninas más compactas. Corola blanca, nerviosita, roja, ó amarillenta." This is an especially interesting description because of the author's recognition and description of distinct male and female inflorescences as being general in the genus.

The genus Amerina of Noronha, referred to in the synonymy on a previous page, is a synonym of Aglaia Lour. in the Meliaceae, while the Amerina of Rafinesque is now reduced to the synonymy of Salix Tourn. in the Salicaceae.

The Petrak Index (1957) lists the fungi, Meliola aegiphilae Stev. and Phyllachora aegiphilae Stev. as infesting members of the genus Aegiphila. Hansford (1961) renames Meliola aegiphilae, calling it Meliola cookeana var. aegiphilae (Stev.) Hansf., and says that it infests an unidentified species of Aegiphila in Guyana, based on Stevens 221. He also proposes a new species, Meliola pseudocapensis Hansf., from another unidentified species of this genus (?) in Brazil, based on Ule App. Mycoth. Bras. 17. Dennis (1970) also records Phyllachora aegiphilae from an unidentified species of Aegiphila in Guyana. Thirumalachar (1960) mentions a rust occurring on an Aegiphila species in Ecuador. It was identified by Arthur in 1918 as a Cleptomyces sp., but Thirumalachar reduces this generic name to synonymy under the earlier name, Stereostratum P. Magn. (1899) and reidentifies the rust as S. lagerhamianus (Diet.) Thirum. The host involved could be any one of 20 species and varieties of Aegiphila known from Ecuador.

Gibson (1970) gives a key to the species of Aegiphila recognized by her from Guatemala, and Macbride (1960) offers one to the species in Peru. The latter author makes some highly interesting comments about this genus of plants: "Like many plants of warm regions some species at least originally found as shrubs probably become scandent when immediate environment makes this possible; naturally, too, plants flowering as shrubs may live to become trees. The monographer prepares two plates....that illustrate the use of his terms, particularly as these apply to the calyx....While the genus contains numerous well-defined entities a lot of plants given equal standing seem to be obscure or they may be just hidden in the uniformity of characterization. The author himself has contrived only an artificial key, and mine concerning the Peruvian names, is no doubt as dubious as some of the described species. Flowers are unknown for three plants given particular names by Moldenke: A. glabrata, A. sordida, A. umbraculiformis, and their key position (as for many others) is

at most merely suggestive; also, many key characters are scarcely of taxonomic value." In my Fifth Summary (1971; pp. 791 and 793) I mention a few other problems that still exist in this genus.

To the list of excluded species and excluded binomials should be added the following:

Aegiphila subthyrsoideum Pittier = Citharexylum subthyrsoideum Pittier

Aegiphila umbellata Vell. = Feramea corymbosa Aubl., Rubiaceae

Aegiphyla inflexa Arrab. = Psychotria sp., Rubiaceae

Aegiphyla laevigata A. L. Juss. = Parameria laevigata (A. L. Juss.) Moldenke, Apocynaceae

Aegiphyla muxia Willd. = Nuxia verticillata Lam., Loganiaceae

Aegiphyla stipulata Arrab. — in the Rubiaceae

Aegiphyla umbellata Arrab. = Feramea corymbosa Aubl., Rubiaceae

Aegiphyla viburnifolia A. L. Juss. = Elaeodendron viburnifolium (A. L. Juss.) Merr., Celastraceae

The Rosas R. 1343, distributed as Aegiphila sp., is actually Cornutia grandifolia (Schlecht. & Cham.) Schau., Fournier s.n. [acquis en Janvier 1885] in the Paris herbarium is Cornutia grandifolia var. purpusi Moldenke, Allemão 1179 is Vitex gardneriana Schau., Stork C.33, distributed as "Aegiphila probably new sp.", is something in the Rubiaceae, and J. E. Montes 27434 & 27449 are also non-verbenaceous.

#### AEGIPHILA ALBA Moldenke

Additional & emended bibliography: Moldenke, Phytologia 1: 185—186 (1937), 1: 290 (1938), 2: 90 (1945)m and 2: 388—389. 1947; Hill & Salisb., Ind. Kew. Suppl. 10: 5. 1947; Holdridge, Teesd., Myer, Little, Horn, & Marr., For. West. & Cent. Ecuad. 46. 1947; Little, Carib. Forest. 9: 269. 1953; Moldenke, Phytologia 4: 347 & 385 (1953) and 13: 319 & 341. 1966; Acosta Solis, Divis. Fitogeogr. Ecuad. 45. 1968; Moldenke, Fifth Summ. 1: 134 (1971) and 2: 844. 1971.

Recent collectors describe this species as a tree, 7—12 meters tall, the trunk 17—30 cm. in diameter 1.3 m. above its base, growing in wet primary or wet secondary woods, secondary forests, tropical rainforests, and along roadsides. The corolla is described as "white" on Játiva & Epling 354 & 543. In addition to months previously reported by me, it has been found in anthesis in January and August and in fruit in July. Additional vernacular names recorded for it are "masanorror" and "nacedora", the former name is also applied to Isertia pittieri (Standl.) Standl.

Additional & emended citations: ECUADOR: Esmeraldas: Asplund 16369 (N); Little & Dixon 21249 (N); Játiva 337 (N); Játiva & Epling 1166 (N, W—2534031). Los Ríos: Mexia 6656 (W—1592021—type). Pichincha: Játiva & Epling 354 (N, N), 543 (N); Sparre 14112 (S), 14120 (S). LOCALITY OF COLLECTION UNDETERMINED: Collector undetermined 125-49 ["Lloa Chirquil."] (P).

AEGIPHILA AMAZONICA Moldenke

Synonymy: Aegiphylia amazonica Moldenke, Fifth Summ. 1: 384, in syn. 1971.

Additional bibliography: Hill & Salisb., Ind. Kew. Suppl. 10: 5. 1947; Moldenke, Phytologia 7: 457. 1961; Moldenke, Fifth Summ. 1: 138, 144, & 384 (1971) and 2: 844. 1971.

Recent collectors have found this plant growing on non-inundated ground, in caatinga on white sand, and in the secondary margins of primary forests, and describe it as a shrub or small tree, 1--25 m. tall, the young fruit green "with a yellow-green calyx". Oliveira comments "flôr branca em cachos". In addition to months previously reported by me, it has been found in anthesis in November and in young fruit in May. The corollas are described as "white" on Ducke 864, E. Oliveira 4275, and Prance & al. 15944a.

Additional citations: BRAZIL: Amazonas: Ducke 864 (W--2592939); Prance, Maas, Woolcott, Monteiro, & Ramos 15944a (N, Rf); Prance, Philcox, Rodrigues, Ramos, & Farias 4894 (Ac, N). Pará: E. Oliveira 4275 (N).

AEGIPHILA ANOMALA Pittier

Additional & emended bibliography: Donn. Sm., Bot. Gaz. 57: 426. 1914; Moldenke, Brittonia 1: 252, 257, 263, 288--289, 291, 292, 473, & 475. 1934; Moldenke, Phytologia 13: 319--320. 1966; Moldenke, Résumé Suppl. 17: 2. 1968; Gibson, Fieldiana Bot. 24 (9): 176. 1970; Moldenke, Fifth Summ. 1: 86 & 89 (1971) and 2: 491 & 844. 1971; Moldenke, Phytologia 25: 227. 1973.

Recent collectors describe this plant as a tree, 15 m. tall, and have found it growing on hills at 1000--1300 meters altitude, flowering in January. The corollas are described as "white" on P. H. Allen 2350.

Aegiphila anomala is certainly very closely related to A. valerii Standl., but Gibson (1970) affirms that A. anomala has flowers that are "twice as large as those of A. valerii"; also, the calyx of A. valerii is truncate, while in A. anomala it is more or less lobed. On this basis, the Jiménez M. 1344, distributed as A. anomala, is actually A. valerii. Donnell Smith (1914) distinguishes A. anomala from A. odontophylla Donn. Sm. by saying that in the former the leaves are verticillate, while in the latter they are merely opposite.

Additional & emended citations: COSTA RICA: Alajuela: Brenes 6652 (F--854807), 15661 (F--857980); A. Smith 138 (F--918708), A.242 (F--941492), A.379 (F--919684, F--923655, F--923667). Cartago: H. Pittier s.n. [Herb. Inst. Physico-geogr. Nac. C. R. 16711] (F--633316--photo of type, W--578905--type, W--578906--isotype); Stork 2290 (F--598754). PANAMA: Coclé: P. H. Allen 2350 (E--1249308).



*AEGIPHILA ARCTA* Moldenke, *Résumé Suppl.* 16: 5, nom. nud. 1968; *Act. Bot. Venez.* 6: 93—94. 1972.

Bibliography: Moldenke, *Résumé Suppl.* 16: 5. 1968; Moldenke, *Fifth Summ.* 1: 121 (1971) and 2: 844. 1971; Moldenke, *Act. Bot. Venez.* 6: 93—94. 1972.

Citations: VENEZUELA: Yaracuy: Steyermark, Bunting, & Wessels-Boer 100334 (N—-isotype, Z—-type).

*AEGIPHILA AUSTRALIS* Moldenke

Additional bibliography: Hill & Salisb., *Ind. Kew. Suppl.* 10: 5. 1947; Moldenke, *Phytologia* 13: 320. 1966; Moldenke, *Fifth Summ.* 1: 144 (1971) and 2: 844. 1971.

Recent collectors have found this plant growing at the edge of lakes, flowering in March, and describe it as a shrub, 2 m. tall. The corollas on Hatschbach & Guimarães 29383 are said to have been "cream"-colored.

Additional citations: BRAZIL: Santa Catarina: Hatschbach & Guimarães 29383 (Z).

*AEGIPHILA BARBADENSIS* Moldenke

Additional & emended bibliography: Moldenke in Fedde, *Repert. Spec. Nov.* 33: [113]—114. 1933; Moldenke, *Brittonia* 1: 270, 272, 376—377, 381, 382, & 477. 1934; Fedde & Schust. in Just, *Bot. Jahresber.* 60 (2): 567. 1941; Moldenke, *Phytologia* 13: 320. 1966; Moldenke, *Fifth Summ.* 1: 109 (1971) and 2: 844. 1971.

Gooding, Loveless, & Proctor (1965) refer to this plant as a "rare endemic", but comment that "This species is very similar to A. martinicensis, and may prove to be only a form or variety of it." With this statement I fully agree. They cite McIntosh 463 from Sion Hill Gully, deposited in the herbarium of the Barbados Museum.

Emended citations: WINDWARD ISLANDS: Barbados: Warming 101 (F—642196—photo of type, W—1234886—type).

*AEGIPHILA BOGOTENSIS* (Spreng.) Moldenke

Additional & emended synonymy: Ehretia tomentosa H.B.K., Nov. Gen. & Sp. Pl., ed. folio, 3: [51], pl. 208 (1818) and ed. quarto, 3: [65]—66, pl. 208. 1818. Ehretia tomentosa Kunth ex Spreng. in L., *Syst. Veg.*, ed. 16, 1: 648, in syn. 1825 [not E. tomentosa Lam., 1791, nor Roth, 1819]. Ehretia bogotensis Spreng. in L., *Syst. Veg.*, ed. 16, 1: 648. 1825. Ehretia tomentosa Humb. & Kunth ex D. Dietr., *Syn. Pl.* 1: 631, in syn. 1839. Amerina tomentosa (H.B.K.) P. DC., *Prodr.* 9: 512. 1845.

Additional & emended bibliography: H.B.K., Nov. Gen. & Sp. Pl., ed. folio, 3: [51], pl. 208 (1818) and ed. quarto, 3: [65]—66, pl. 208. 1818; D. Dietr., *Syn. Pl.* 1: 630—631. 1839; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, pr. 1, 1: 106 & 823. 1893; Moldenke in Fedde, *Repert. Spec. Nov.* 33: 114. 1933; Moldenke, *Brittonia* 1: 258—260, 263, 283—284, 330, 347, & 373—376. 1934; Fedde & Schust. in Just, *Bot. Jahresber.* 60 (2): 567. 1941; Jacks. in

Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 106 & 823. 1946; Moldenke, Mem. N. Y. Bot. Gard. 9: 175. 1955; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 3, 1: 106 & 823. 1960; Moldenke, Phytologia 13: 320. 1966; Moldenke, Fifth Summ. 1: 113, 121, 134, 378, & 389 (1971) and 2: 491 & 844. 1971; Moldenke, Phytologia 25: 220 & 238. 1973.

Emended illustrations: H.B.K., Nov. Gen. & Sp. Pl., ed. folio, 3: pl. 208 [in color] (1818) and ed. quarto, 3: pl. 208. 1818.

Recent collectors have described this species as a shrub or tree, 3—4 m. tall, or subsucculent, much-branched, the calyx ferruginous, and have found it growing on paramos and in cleared forests, at altitudes of 1900—3660 m. In addition to the months previously reported by me, it has been collected in anthesis and fruit in November. The corollas are described as "white" on Asplund 7980, Espinal T. & Ramos 3245, and García-Barriga 17308 and as "yellowish-white" on García-Barriga & Hawkes 13088.

The Ehretia tomentosa Lam., referred to in the synonymy above, is a valid species in the Ehretiaceae, while E. tomentosa Roth is a synonym of E. heynei Roem. & Schult. in that same family.

The Cuatrecasas & Idrobo 26966, distributed as A. bogotensis, is actually A. cuatrecasasi Moldenke.

Additional & emended citations: COLOMBIA: Cauca: Espinal T. & Ramos 3245 (Ac), 3289 (Rf), 3434 (Ft). Cundinamarca: Bonpland s. n. (F—976553); García-Barriga 17308 (W—2569408a); Mutis 2332 (W—1561464), 5196 (W—1561137—cotype). Narifio: García-Barriga & Hawkes 13088 (N). Tolima: Purdie s. n. (F—642197—photo). Department undetermined: Mutis 5774 (W—1563803). ECUADOR: Napo-Pastaza: Asplund 17204 (N). Tunguragua: Asplund 7980 (W—2513174).

AEGIPHILA BOGOTENSIS var. AEQUINOCTIALIS Moldenke

Additional bibliography: Moldenke, Phytologia 13: 320. 1966; Moldenke, Fifth Summ. 1: 134 (1971) and 2: 844. 1971.

AEGIPHILA BOGOTENSIS f. TERNATA Moldenke, Phytologia 25: 220. 1973.

Bibliography: Moldenke, Phytologia 25: 220. 1973.

This form differs from the typical form of the species in having its leaves ternate.

Hitherto I have regarded the specimens cited below as representing A. ternifolia (H.B.K.) Moldenke and I am very grateful to my friend and colleague, Dr. Santiago López-Palacios, for pointing out to me that they do not at all represent that species, but are merely ternate-leaved examples of a common Colombian species. He plans to publish further on this subject shortly.

Citations: COLOMBIA: Cundinamarca: Goudot s. n. [near Bogotá] (A—photo, B—photo, D—photo, G—photo, K, N—photo, P—photo, S—photo, W—photo, Z—photo); F. C. Lehmann B.T.690 (K—isotype, N—type, N—photo of isotype, Z—photo of isotype).

## AEGIPHILA BOLIVIANA Moldenke

Additional & emended bibliography: Moldenke in Fedde, Repert. Spec. Nov. 33: 114--115. 1933; Moldenke, Brittonia 1: 257, 270, 272, 391, 399--400, & 476. 1934; Fedde & Schust. in Bot. Jahresber. 60 (2): 567. 1941; Moldenke, Phytologia 7: 459. 1961; Moldenke, Résumé Suppl. 17: 12. 1968; Moldenke, Fifth Summ. 1: 181 & 378 (1971) and 2: 844. 1971.

Steinbach describes this as a "rare tree, 3--6 m. tall, on low mountains, sandy semidry soil", and found it growing at 300 m. altitude, flowering in October. On R. F. Steinbach 381 the flowers are described as having been "white, anthers ochre".

Additional & emended citations: BOLIVIA: Cochabamba: R. F. Steinbach 381 (N, W--2533309). Santa Cruz: J. Steinbach 5066 (F--550111--cotype), 6437 (F--642199--photo of cotype), 7250 (Ca--368617, D--652998, E--941146, F--573473), 7289 (Ca--368588, D--652987, E--941177, F--573500).

## AEGIPHILA BRACHIATA Vell.

Additional & emended synonymy: Aegiphyla brachiata Arrab. ex Steud., Nom. Bot., ed. 2, 1: 29. 1840. Aegiphila brachiata Arrab. ex Walp., Repert. Bot. Syst. 4: 124. 1845. Aegiphila brachiata Vell. ex Reitz, Sellowia 3: 72, sphalm. 1951.

Additional & emended bibliography: Schau. in Mart., Fl. Bras. 9: 284 & [309--310]. 1851; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46 & 47. 1893; Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 166. 1894; Glaz., Bull. Soc. Bot. France 58 [ser. 4, 11], Mém. 3: 546. 1911; Donn. Sm., Bot. Gaz. 57: 426. 1914; Moldenke, Brittonia 1: 265, 309--311, 452, & 473--476. 1934; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 46 & 47. 1946; Reitz, Sellowia 3: 72. 1951; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 3, 1: 46 & 47. 1960; Angely, Fl. Anal. Paran., ed. 1, 579. 1965; Moldenke, Phytologia 13: 320--321 & 339. 1966; Moldenke, Résumé Suppl. 16: 14. 1968; Reitz, Sellowia 22: 8. 1970; Moldenke, Fifth Summ. 1: 144, 184, 378, 379, & 383 (1971) and 2: 845. 1971.

Recent collectors describe this species as a shrub or small tree, 2.5--8 m. tall, the trunk 4--15 cm. in diameter, the bark pale brownish-gray, smooth, and the fruit obovate, hard, 1.5--3 cm. long, 1.3--2.9 cm. wide, yellowish, local in distribution beside "picardas" of high woods and along roadsides in cleared woodland and in capoeira. The corollas on Woolston 1201 are described as having been "yellowish" and on 1269 as "greenish-yellow"; on Hatschbach 30331 they were "cream"-colored.

The O. Camargo 2284 [Herb. Anchieta 62529], distributed as A. brachiata and so cited by Rambo (1965), is actually A. haasleri Briq., as is also Lindeman & Haas 534.

Additional & emended citations: BRAZIL: Paraná: Hatschbach 30331 (Id); Jönsson 979a (E--1036677, W--1481942). Rio Grande do Sul: O. Camargo 2164 [Herb. Anchieta 62539] (B). Santa Catarina:

Smith & Klein 13233 (N). State undetermined: Sellow 1269 [Macbride photos 17590] (F—663019—photo, W—1323308), 3012 (W—617574). PARAGUAY: Jørgensen 3662 (D—690558, E—972725, F—697021, F—767976, W—1483674); Woolston 1201 (N, S), 1269 (N, S).

# AEGIPHILA BRACTEOLOSA Moldenke

Emended synonymy: Aegiphila arborescens f. longiflora Schau. in A. DC., Prodr. 11: 650. 1847. Aegiphila arborescens f. mascula  $\alpha$  longiflora Schau. in Mart., Fl. Bras. 9: 282. 1851. Aegiphila arborescens f. foemina  $\alpha$  longiflora Schau. in Mart., Fl. Bras. 9: 282. 1851. Aegiphila arborescens var. longiflora Schau. apud Moldenke, Brittonia 1: 337, in syn. 1934. Aegiphila solanifolia Mart. ex Moldenke, Phytologia 1: 189, in syn. 1937.

Additional & emended bibliography: Moldenke in Fedde, Repert. Spec. Nov. 33: 115. 1933; Moldenke, Brittonia 1: 252, 255, 275, 280, 309, 428, 456—458, & 474—476. 1934; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Hill & Salisb., Ind. Kew. Suppl. 10: 5. 1947; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 704—705. 1960; Moldenke, Phytologia 13: 321. 1966; Moldenke, Fifth Summ. 1: 113, 128, 138, 144, 378, & 382 (1971) and 2: 845. 1971; Moldenke, Phytologia 25: 235. 1973.

Schauer (1847) plainly designates his infraspecific taxa, "longiflora" and "breviflora", as forms (not varieties), saying "Flores diclini, magnitudine ac figura duplici forma obvi", even though he precedes the epithets with Greek letters. His f. breviflora he characterizes as follows: "♂: Cal. 3 lin. longus. Cor. infundibularis, tubo calycem vix aequante vel paulo excedente, limbi laciniis lanceolatis 2 lin. longis reflexis. Stamina limbo sesquialongiora. ♀: Cal. turbinato-campan. 2 1/2 lin. long. Cor. calycem limbo exiguo superans, antheras tabescentes brevistipitatas infra fauces gerens. Stylus longe exsertus." His f. longiflora is described as "♂: Cal. 4 fere lin. longus. Cor. tubo gracili 5—6 lin. metiente laciniis lanceolatis lineâ paulo longioribus reflexis. Stam. limbum duplo excedentia. Stylus inclusus bifidus. ♀: Cal. et cor. maris. Antherae abortivae, breviter stipitatae, fauci cor. inclusae. Stylus capillaris cruribus exsertis." I regard f. breviflora as A. integrifolia (Jacq.) Jacks. and f. longiflora as A. bracteolosa. In his 1851 work he modifies the description of the taxon only slightly although he reduces it in rank.

Macbride (1960) describes this species as "A tree to 5 meters of non-inundated forest" and cites only Tessmann 5363 from Loreto, Peru.

Emended citations: GUYANA: Lang & Persaud 253 (F—559108—iso-type). BRAZIL: Amazonas: Ducke 444 (F—901783, W—1693448); Holt & Blake 623 (W—1519230); Krukoff 5060 (F—810499); Spruce s.n. [In vicinibus Barra] (F—686544). MOUNTED ILLUSTRATIONS: Moldenke, Phytologia 2: 435, fig. 1. 1948 (N—drawing).



## AEGIPHILA BRASILIENSIS Moldenke

Additional & emended bibliography: Moldenke in Fedde, Repert. Spec. Nov. 33: 115—116. 1933; Moldenke, Brittonia 1: 265, 306, 307, & 477. 1934; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Moldenke, Phytologia 7: 460. 1961; Moldenke, Fifth Summ. 1: 144 (1971) and 2: 845. 1971.

The Hatschbach 22189 and Hatschbach & Guimarães 19837 & 22189, distributed as A. brasiliensis, are actually A. mediterranea var. brevilobata Moldenke.

Emended citations: BRAZIL: Rio de Janeiro: United States Exploring Exped. [Wilkes] s.n. [Rio de Janeiro] (W—55749—type).

## AEGIPHILA BREVIFLORA (Rusby) Moldenke

Additional bibliography: Moldenke, Brittonia 1: 456—458. 1934; Moldenke, Phytologia 4: 428 & 431. 1953; Moldenke, Fifth Summ. 1: 181 (1971) and 2: 614 & 845. 1971.

Emended citations: BOLIVIA: El Beni: M. Cardenas 16, special (W—1232148—isotype).

## AEGIPHILA BUCHTIENII Moldenke

Additional & emended bibliography: Moldenke, Brittonia 1: 278, 430—432, 441, & 472. 1934; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Moldenke, Phytologia 7: 460. 1961; Moldenke, Fifth Summ. 1: 181 (1971) and 2: 945. 1971.

Emended citations: BOLIVIA: La Paz: Buchtien 1716 (W—1399627), 1717 (W—1399421—type).

## AEGIPHILA CANDELABRUM Briq.

Additional & emended bibliography: Briq. in Chod. & Hassler, Bull. Herb. Boiss., ser. 2, 4: 1168. 1904; Moldenke, Brittonia 1: 278, 309, 426—429, 457, & 473. 1934; Moldenke, Phytologia 13: 321 & 329. 1966; Moldenke, Fifth Summ. 1: 144 & 184 (1971) and 2: 845. 1971.

Pedersen describes this species as a shrub, 2—3 m. tall, with yellow flowers, inhabiting moist woodlands, blooming in January. Hatschbach & Guimarães refer to it as a vine with greenish-cream flowers and vermilion fruit, and found it growing in "orla da mata pluvial", flowering and fruiting in April. Material has been misidentified and distributed in some herbaria as A. chrysantha Hayek. On the other hand, the Woolston 844, 1046, & 1059, distributed as A. candelabrum, are actually A. lanceolata Moldenke.

Additional & emended citations: BRAZIL: Paraná: Hatschbach & Guimarães 19157 (N, Z). PARAGUAY: Fiebrig 4875 (P); Hassler 7974 (F—686679), 8120 (F—772030—photo of type); Pedersen 3192 (N).

## AEGIPHILA CAPITATA Moldenke

Additional & emended bibliography: Moldenke in Fedde, Repert. Spec. Nov. 33: 116—117. 1933; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Moldenke, Phytologia 7: 461. 1961; Angely, Fl. Anal. Fitogeogr. Est. S. Paulo, ed. 1, 4: 1 & 826. 1970;

Moldenke, Fifth Summ. 1: 144 (1971) and 2: 845. 1971.

AEGIPHILA CASSELLIAEFORMIS Schau.

Additional & emended bibliography: Schau. in Mart., Fl. Bras. 9: 285 & [309--310]. 1851; Moldenke, Brittonia 1: 265, 297, 303--304, 472, & 475. 1934; Moldenke, Phytologia 7: 461. 1961; Angely, Fl. Anal. Fitogeogr. Est. S. Paulo, ed. 1, 4: 1 & 826. 1970; Moldenke, Fifth Summ. 1: 144 (1971) and 2: 845. 1971.

AEGIPHILA CAUCENSIS Moldenke

Additional & emended bibliography: Moldenke, Brittonia 1: 257, 273, 411, & 475. 1934; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Moldenke, Phytologia 13: 321--323. 1966; Dwyer, Raymondiana 4: 70. 1971; Moldenke, Fifth Summ. 1: 113 & 138 (1971) and 2: 845. 1971.

Dwyer (1971) cites Woytkowski 6432 from Junín, Peru.

Emended citations: COLOMBIA: Caldas: Pennell, Killip, & Hazen 8667 (D--613015--isotype, W--1142652--isotype).

AEGIPHILA CAYMANENSIS Moldenke

Additional & emended bibliography: Moldenke, Brittonia 1: 254, 264, 353--355, & 474. 1934; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Moldenke, Phytologia 7: 461. 1961; Moldenke, Fifth Summ. 1: 99 (1971) and 2: 845. 1971.

It is my opinion now that both A. barbadiensis Moldenke and A. caymanensis should be reduced to form rank under A. martinicensis Jacq. I doubt very much that they deserve any higher rank.

Emended citations: CAYMAN ISLANDS: Grand Cayman: A. S. Hitchcock s.n. [Grand Cayman, 1-17-'91] (E--117710--isotype, F--228141--type).

AEGIPHILA CEPHALOPHORA Standl.

Synonymy: Aegiphila cephalophora Moldenke, Résumé Suppl. 16: 14, in syn. 1968.

Additional & emended bibliography: Moldenke, Brittonia 1: 254, 270, 413--415, 459, 472, & 474. 1934; Fedde & Schust. in Just, Bot. Jahresber. 59 (2): 400. 1938; Moldenke, Phytologia 13: 322. 1966; Moldenke, Résumé Suppl. 15: 3 (1967) and 16: 14. 1968; Moldenke, Fifth Summ. 1: 89 & 378 (1971) and 2: 845. 1971.

Recent collectors describe this plant as a vine or woody vine, inhabiting the forest, its flowers falling off easily, and its fruit becoming orange when ripe. It has been found growing at 10 meters altitude, flowering in July and August, and fruiting in November. The corollas are described as "white" on Croat 16511 and as "greenish-white" on R. Foster 2358. Johnston describes the plant as a "vine, climbing high on forest margins, the fruiting stems pendent, fruit orange, ca. 15 mm. diameter". The densely appressed-pubescent branches, with long white antrorse hairs, distinguish this species at once from the otherwise quite similar A. deppeana Steud., where the pubescence spreads at right angles

to the branches and is more buff-colored.

The Lewis, MacBryde, Oliver, & Ridgway 1559 & 1566 and Tyson, Dwyer, & Blum 2988, distributed as A. cephalophora, are actually A. deppeana Steud., while Dwyer & Gentry 9556 and S. M. Hayden 1003 and Tyson, Dwyer, & Blum 4342 appear to be A. hoehneltii var. spectabilis Moldenke.

Additional & emended citations: PANAMA: Canal Zone: Aviles 988 (F-734223); I. M. Johnston 1661 (E-1711530). Barro Colorado Island: Bailey & Bailey 662 (F-643096); Bangham 543x (F-605390); Croat 4326 (N), 6629 (N), 12563 (N, W-2620228), 16511 (N); R. Foster 2358 (N); Kenoyer 607 (F-579764—isotype, F-633356—isotype, W-1317604—type); Shattuck 988 (E-1788370).

#### AEGIPHILA CHRYSANTHA Hayek

Synonymy: Aegiphila lutea Poepp. ex Moldenke, Prelim. Alph. List Invalid Names 2, in syn. 1940 [not A. lutea Lam., 1791].

Additional & emended bibliography: Moldenke, Brittonia 1: 254, 276, 278, 418, 423, 425-426, 438, & 473-476. 1934; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 704, 705, 712, & 720. 1960; Moldenke, Phytologia 13: 322. 1966; Moldenke, Fifth Summ. 1: 134, 138, 144, 181, 378, & 381 (1971) and 2: 845. 1971; Moldenke, Phytologia 23: 418. 1972.

Recent collectors describe this plant as a shrub, 3 m. tall, with pendent branches, or a vine, the calyx green or dark-green, and the fruit at first green, later vermillion. The corollas are described as having been "yellow" on M. Silva 761 and Silva & Souza 2262, "cream-greenish" on Hatschbach & Guimarães 19157, and "greenish-yellow" on Belém 1430. It has been collected on terra firma, in open secondary vegetation, on cultivated land, in secondary forest vegetation, and at the margins of forests along roadsides, flowering in April, July, and August, and fruiting in April and July. Macbride (1960) cites Klug 2027, 2104, & 2204 and Poeppig 2314 from Loreto and Weberbauer 1289 from San Martín, Peru. He notes that Asplund described the corolla of a Loreto specimen as "sordid-yellow", Camp described the fruit as orange-red, and Klug, Hatschbach & Guimarães refer to the plant as a liana. Macbride cites Field Mus. negative 34212 and suggests that A. longipetiolata Moldenke may only be a glabrous variety of A. chrysantha [cfr. A. chrysantha var. glabra Moldenke]. The A. lutea of Lamarck, referred to in the synonymy above, is a synonym of A. laevis (Aubl.) Gmel.

The Hatschbach & Guimarães 19157, distributed as A. chrysantha, is actually A. candelabrum Briq.

Additional & emended citations: ECUADOR: Esmeraldas: Sparre 15315 (S), 15483 (S). Guayas: Eggers 14348 (F-642203—photo, F-684156—photo, W-1323272, W-1323311). Los Ríos: Asplund 15539 (N). Manabí: Eggers 14838 (F-142785, W-1323312). PERU: Loreto:

Klug 2027 (E—1005108, F—642732, W—1456686), 2104 (F—642776), 2204 (F—668847); Poeppig 2314 (F—869319—isotype, F—976275—photo of logotype). BRAZIL: Acre: Prance, Maas, Kubitzki, Steward, Ramos, Pinheiro, & Lima 11825 (Id). Amazonas: M. Silva 761 [Herb. Mus. Goeldi 32609] (N). Bahia: Belém 1430 (N, N), 1436 (N). Pará: Silva & Souza 2262 (Rf). Roraima: Prance, Steward, Ramos, & Farias 9838 (Ac, N). State undetermined: Miers s.n. [Maji to Freichal, 1 May 1838] (P).

#### AEGIPHILA CHRYSANTHA var. GLABRA Moldenke

Additional bibliography: J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 705. 1960; Moldenke, Phytologia 7: 462. 1961; Moldenke, Fifth Summ. 1: 138 (1971) and 2: 845. 1971.

Macbride (1960) suggests that A. longipetiolata Moldenke may actually be identical with the present variety.

Emended citations: PERU: San Martín: Klug 3894 (F—766408—isotype).

#### AEGIPHILA CONTURBATA Moldenke

Additional bibliography: Moldenke, Phytologia 13: 322. 1966; Moldenke, Fifth Summ. 1: 144 (1971) and 2: 845. 1971.

#### AEGIPHILA CORDATA Poepp.

Additional & emended bibliography: Bocq., Rév. Verbenac. 190. 1863; Moldenke, Brittonia 1: 254, 255, 259, 277, 443—445, & 475. 1934; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 702, 705—706, & 715. 1960; Moldenke, Phytologia 13: 322. 1966; Dwyer, Raymondi-ana 4: 70. 1971; Moldenke, Fifth Summ. 1: 138, 144, & 378 (1971) and 2: 845. 1971; Moldenke, Phytologia 23: 417. 1972.

Recent collectors describe this plant as a shrub, 2—4 m. tall, and have found it growing in low forests and in high woods at the edge of quebradas, at 210 m. altitude, flowering in February, and fruiting in October. The fruits are described as red. The corollas are said to have been "pale-yellow" on Schunke V. 1697 and "brilliant greenish-yellow" on Schunke V. 922. Dwyer (1971) cites Woytkowski 5977 from Junín, Peru. Macbride (1960) cites the type collection as Poeppig 2815, rather than 2158. Actually no collection number is given in the original publication, where it is merely asserted that the type originated in "Maynas". Macbride also cites Ll. Williams 2083 & 2318 from Loreto, Peru, and Ule 9720 from Acre, Brazil. The species also occurs in Columbia, he says, but I know only the var. colombiana from that country.

Additional & emended citations: PERU: Huánuco: Schunke V. 1697 (N). Loreto: Poeppig 2158 (F—642202—photo of type, F—976260—photo of type, F—869318—isotype); Schunke V. 922 (N).

#### AEGIPHILA CORDATA var. COLOMBIANA Moldenke

Additional bibliography: Moldenke, Phytologia 7: 463. 1961; Mol-



denke, Fifth Summ. 1: 113 (1971) and 2: 845. 1971.

This form seems closely related to A. hoehnei var. spectabilis Moldenke.

Emended citations: COLOMBIA: Santander Sur: Haught 1885 (F—1036037—isotype).

AEGIPHILA CORDATA var. VILLOSISSIMA (Moldenke) Moldenke, comb. & stat. nov.

Synonymy: Aegiphila villosissima Moldenke, Bull. Torrey Bot. Club 60: 392—393. 1933.

Additional & emended bibliography: Moldenke, Bull. Torrey Bot. Club 60: 392—393. 1933; Moldenke, Brittonia 1: 252, 255, 259, 277, 442—444, & 474. 1934; A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Moldenke, Phytologia 1: 296. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 569. 1941; Moldenke, Phytologia 8: 20. 1961; Moldenke, Fifth Summ. 1: 146 (1971) and 2: 848. 1971.

Krukoff describes this plant as a woody vine, growing on terra firma, while Prance and his associates call it a tree, 5 m. tall, with yellow fruit, and encountered it growing on the margins of forests along roadsides. It has been collected in anthesis in November and in fruit in April, and has been misidentified in some herbaria as Cordia sp.

Additional & emended citations: BRAZIL: Acre: Prance, Maas, Kubitzki, Steward, Ramos, Pinheiro, & Lima 11828 (Z). Mato Grosso: Krukoff 1400 (A—isotype, B—isotype, Bm—isotype, Ca—isotype, Cb—isotype, E—isotype, K—isotype, Mi—isotype, N—type, N—photo of type, N—photo of isotype, N—photo of isotype, P—isotype, S—isotype, Ut—isotype, W—photo of type, Z—photo of type, Z—photo of isotype, Z—photo of isotype).

AEGIPHILA CORDIFOLIA (Ruiz & Pav.) Moldenke

Additional & emended bibliography: Pers., Sp. Pl. 1: 342. 1817; Roem. & Schult. in L., Syst. Veg., ed. 15 nov., 3: 95. 1818; Steud., Nom. Bot., ed. 1, 137. 1821; Schau. in Mart., Fl. Bras. 9: 288 & 311. 1851; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 386. 1893; Moldenke, Brittonia 1: 278, 405, 409, 438, 445—446, 459, & 475. 1934; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 569. 1941; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 386 (1946) and pr. 3, 1: 386. 1960; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 704, 706, & 720. 1960; Moldenke, Phytologia 13: 322—323 & 428. 1966; Moldenke, Fifth Summ. 1: 138 & 407 (1971) and 2: 845. 1971.

Macbride (1960) cites only the type collection, Ruiz & Pavon s. n., and Macbride 3922 from Huánuco and A. Mathews s. n. from Amazonas, Peru. Fedde & Schuster (1941) misspell the abbreviation for Pavon as "Tav." The Schunke V. 906 & 1300, distributed as A. cordifolia, are actually A. spicata (Rusby) Moldenke.

Emended citations: PERU: Huánuco: Macbride 3922 (F—534984); Ruiz & Pavon s. n. [Miffa, Panatahua; Macbride photos 28378] (F—842488—isotype). Department undetermined: Ruiz & Pavon 12/68 (F—

712556).

AEGIPHILA CORIACEA Moldenke

Additional & emended bibliography: Moldenke in Fedde, Repert. Spec. Nov. 33: 118—119. 1933; Moldenke, Brittonia 1: 254, 265, 317—319, 336, & 473. 1934; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Moldenke, Phytologia 7: 463. 1961; Moldenke, Fifth Summ. 1: 144 (1971) and 2: 845. 1971.

AEGIPHILA COSTARICENSIS Moldenke

Additional synonymy: Clerodendron matudae Standl., Field Mus. Publ. Bot. 17: 206—207. 1937. Clerodendron matudae Standl. apud Matuda, Am. Midl. Nat. 44: 575. 1950. Aegiphila costaricense Moldenke, Fifth Summ. 1: 378, in syn. 1971.

Additional & emended bibliography: Moldenke, Brittonia 1: 252, 255, 263, 294—295, 473, 475, & 476. 1934; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Moldenke, Phytologia 5: 153 (1955) and 13: 323. 1966; Moldenke, Résumé Suppl. 16: 2. 1968; Gibson, Fieldiana Bot. 24 (9): 169 & 170. 1970; Moldenke, Fifth Summ. 1: 66, 78, 86, 121, 378, & 450 (1971) and 2: 793 & 845. 1971; Moldenke, Phytologia 23: 416. 1972.

Recent collectors describe this plant as a tree, 6—10 m. tall, with pendulous flowers, growing in rainforests or in mixed lowland forests, at altitudes of 233—1200 meters. Burger & Matta U. refer to it as "quite common in shade of forest". The corollas are said to have been "white" on Burger & Matta U. 4486 and G. N. Ross 159. Gibson (1970) avers that the species is "Readily distinguished from other local species by the 5-parted rather than 4-parted corollas, and by the lax inflorescence with greatly elongated pedicels and slender peduncles".

Additional & emended citations: MEXICO: Chiapas: Matuda 572 (F—888718), 2101 (F—945557). Veracruz: G. N. Ross 159 (W—2528187). GUATEMALA: Quezaltenango: Skutch 2012 (F—933532, W—1644385). COSTA RICA: Alajuela: A. Smith F.1818 (E—1186173, F—980786), F.1907 (F—980756). Guanacaste: Standley & Valerio 44597 (W—1253716), 44606 (W—1253721), 45538 (F—642201, W—1254162). Puntarenas: Burger & Matta U. 4486 (N); H. Pittier, Herb. Instit. Physico-geogr. Nac. C. R. 16034 (W—861265, W—1080472). PANAMA: Bocas del Toro: Pittier & Tonduz, Herb. Instit. Physico-geogr. Nac. C. R. 9167 (F—653827—isotype, W—1080331—isotype, W—1323266—type, W—1323268—isotype); Tonduz, Herb. Instit. Physico-geogr. Nac. C. R. 8564 (W—1080325, W—1323267). VENEZUELA: Carabobo: Steyermark & Steyermark 95242 (N).

AEGIPHILA CRENATA Moldenke

Additional & emended bibliography: Moldenke in Fedde, Repert. Spec. Nov. 33: 119—120. 1933; Moldenke, Brittonia 1: 252, 266, 267, 324, 326—328, & 473—476. 1934; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Angely, Fl. Anal. Paran., ed. 1, 579.

1965; Moldenke, *Phytologia* 13: 323. 1966; Angely, *Fl. Anal. Fito-geogr. Est. S. Paulo*, ed. 1, 4: i & 826, map 1367. 1970; Moldenke, *Fifth Summ.* 1: 114 (1971) and 2: 845. 1971.

Emended citations: BRAZIL: Pernambuco: Pickel 3042 (W—1484782). Paraná: Dusén 10541 (D—683024—isotype, E—1036232—isotype, F—668472—isotype, F—923116—photo of isotype), 16238 (D—683024, E—1036135, F—668471); Jönsson 403a (W—1481941).

#### AEGIPHILA CUATRECASASI Moldenke

Additional bibliography: Moldenke, *Phytologia* 7: 464 (1961) and 22: 6. 1971; Moldenke, *Fifth Summ.* 1: 113 (1971) and 2: 845. 1971.

Cuatrecasas & Idrobo describe this species as a treelet, 3—5 m. tall, with "hoja herbácea, gruesa, verde grisácea haz, mas clara envés; cáliz craso, verde; corola blanca, con banda medial de los pétalos sepia hacia abajo; capullo de la corola blanco-verdoso". They found it growing at 2500 m. altitude, flowering in January. It has been misidentified and distributed in some herbaria as A. bogotensis (Spreng.) Moldenke.

The Cuatrecasas 17075 & 21007, Little 7940, and Little & Ramírez 7800, distributed as A. cuatrecasasi and so cited by me in previous installments of these notes, prove to be A. sessiliflora Moldenke instead.

Additional & emended citations: COLOMBIA: Caquetá: Cuatrecasas 8566 (W—1795382—type, W—1795383—isotype). Cundinamarca: Cuatrecasas & Idrobo 26966 (N, W—2596153, W—2596154).

#### AEGIPHILA CUATRECASASI var. NITIDA Moldenke

Bibliography: Moldenke, *Phytologia* 22: 6. 1971; Moldenke, *Fifth Summ.* 2: 845 & 967. 1971.

Citations: COLOMBIA: Cauca: Espinal T. & Ramos 2897 (Z—type).

#### AEGIPHILA CUNEATA Moldenke

Additional & emended bibliography: Moldenke, *Brittonia* 1: 263, 292—294, 300, & 474. 1934; Fedde & Schust. in Just, *Bot. Jahresber.* 60 (2): 569. 1941; J. F. Macbr., *Field Mus. Publ. Bot.* 13 (5): 704, 706—707, 718, & 719. 1960; Moldenke, *Phytologia* 13: 323. 1966; Moldenke, *Fifth Summ.* 1: 134, 138, & 114 (1971) and 2: 845. 1971; Moldenke, *Phytologia* 25: 228. 1973.

Macbride (1960) cites Killip & Smith 28379 & 28386 from Loreto, Peru, and Ule 9858 from Acre, Brazil. Schunke describes the plant as a shrub, 1—2 m. tall, the leaves dark-green and "coriaceous", the sepals green, the corollas white, and the anthers yellow. He found it growing at 300 m. altitude, flowering in August. It has also been found in anthesis in June. The Schunke V. 3493, distributed as A. cuneata, is actually a species of Solanum in the Solanaceae.

Additional & emended citations: PERU: Loreto: Killip & Smith 28379 (F—631756), 28386 (F—631757—isotype); Schunke V. 2695 (N,

W—2617021). Madre de D<sup>os</sup>: R. E. Schultes 6455 (W—2639542).  
 BRAZIL: Acre: Ule 9859 (F—895692).

AEGIPHILA CUNEATA var. HIRSUTISSIMA Moldenke

Additional bibliography: J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 707. 1960; Moldenke, Phytologia 13: 323. 1966; Moldenke, Fifth Summ. 1: 139 (1971) and 2: 845. 1971.

Macbride (1960) comments that this variety "is well-named". He cites only the type collection, Killip & Smith 29040, from Loreto, Peru.

AEGIPHILA DENTATA Moldenke

Additional bibliography: F. C. Hoehne, Resen. Hist. Secc. Bot. Agron. Inst. Biol. S. Paulo 153. 1937; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 567. 1941; Angely, Ind. Ang. 10. 1959; Moldenke, Phytologia 7: 467. 1961; Angely, Fl. Anal. Fitogeogr. Est. S. Paulo, ed. 1, 4: 1 & 826. 1970; Moldenke, Fifth Summ. 1: 145 (1971) and 2: 845. 1971.

Fedde & Schuster (1941) erroneously imply that this species is based on two collections which they refer to as G. Edwall 4362 & 15614. Actually it is based on a single unnumbered Edwall collection which is no. 4362 in the Herv. Geogr. e Geol. S. Paulo and no. 15614 in the herbarium of the Instituto de Botânica at São Paulo.

AEGIPHILA DEPPEANA Steud., Nom. Bot., ed. 2, 1: 29 [as Aegiphyla deppeana]. 1840; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46. 1893.

Additional & emended synonymy: Aegiphila brachiata Schlecht. & Cham., Linnaea 6: 371. 1831 [not A. brachiata Vell., 1825].  
Aegiphyla brachiata Schlecht. apud Steud., Nom. Bot., ed. 2, 1: 29, in syn. 1840. Aegiphila brachiata Cham. & Schlecht. apud Walp., Repert. Bot. Syst. 4: 122. 1845. Aegiphila deppeana Steud. apud Walp., Repert. Bot. Syst. 4: 122, in syn. 1845. Aegiphila berteriana Schau. in A. DC., Prodr. 11: 654. 1847. Aegiphila pacifica Greerm., Proc. Am. Acad. 33: 485. 1898. Aegiphila brachiata Schlecht. apud Donn. Sm., Bot. Gaz. 57: 426. 1914. Aegiphila deppeana Moldenke, Suppl. List Invalid Names [1], in syn. 1941.

Additional & emended bibliography: Schlecht. & Cham., Linnaea 6: 371. 1831; Steud., Nom. Bot., ed. 2, 1: 29. 1840; Walp., Repert. Bot. Syst. 4: 122. 1845; Schau. in A. DC., Prodr. 11: 654—655. 1847; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46. 1893; Greerm., Proc. Am. Acad. 33: 485. 1898; Thiselst.-Dyer, Ind. Kew. Suppl. 2: 4. 1904; Donn. Sm., Bot. Gaz. 57: 426. 1914; P. C. Standl., Contrib. U. S. Nat. Herb. 23: [Trees & Shrubs Mex.] 1253—1254. 1924; Moldenke, Brittonia 1: 275, 276, 280, 311, 450—452, & 472—477. 1934; Moldenke, Phytologia 1: 197—198 & 223 (1937) and 1: 291. 1938; P. C. Standl., Field Mus. Publ. Bot. 18:



995. 1938; Moldenke, *Phytologia* 1: 382—383 (1940), 2: 62 (1941), and 2: 90. 1945; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, pr. 2, 1: 46. 1946; Moldenke, *Phytologia* 2: 391—392 (1947), 2: 434 (1948), 4: 351 & 386 (1953), and 5: 153. 1955; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, pr. 3, 1: 46. 1960; Moldenke, *Phytologia* 7: 467—468 (1961) and 13: 323. 1966; Gómez Pompa, *Estud. Bot. Reg. Misantla* 93. 1966; Moldenke, *Résumé Suppl.* 16: 3 & 14. 1968; Gibson, *Fieldiana Bot.* 24 (9): 169—171. 1970; Moldenke, *Fifth Summ.* 1: 66, 78, 86, 89, 113, 121, 133, 354, 378, 379, 382, & 383 (1971) and 2: 845. 1971; Moldenke, *Phytologia* 23: 416 (1972) and 25: 227. 1973.

Recent collectors describe this species as a shrub, climbing shrub, or tree, 1.3—4 m. tall, often vining, with a stem diameter of 2—4 cm., the leaves "firmly membranous", rich-green above, pale grayish-green beneath, and the fruit orange, and have encountered it growing in low forests, "in scraps of forest along trails containing large 'espaves'", on riverbanks, in gravel riverbeds, and at forest edges, at altitudes of sea-level to 690 meters, flowering from December to March and in May, fruiting in March. Ventura A. calls it abundant in matorral "loma cerca de la plaza", while Chavelas P., Esparza, & Aceves found it in a high evergreen forest with Scheelea liebmanni, Spondias mombin, Enterolobium cyclocarpum, and Calophyllum brasiliense, and in red well-drained soil of old secondary forests with Ceiba pentandra, Scheelea liebmanni, Spondias sp., Bursera simaruba, Picramnia antidesma, and Apeiba tiborbous.

The corollas are said to have been "yellow" on Chavelas P., Esparza, & Aceves ES.2784 & ES.2848, Ortiz 714, Stern, Eyde, & Ayensu 1828, and Tyson, Dwyer, & Blum 2988 & 3100, "pale-yellow" on Lewis, MacBryde, Oliver, & Ridgway 1559, "yellowish-green" on Ventura A. 3382, "gray-green" on Steyermark, Bunting, & Blanco 101376, and "white" on Uribe Uribe 5874. The Stern, Eyde, & Ayensu 1828 collection is a voucher for wood sample 33652 in the Missouri Botanical Garden's wood collection.

Gibson (1970) gives the species' distribution as Guatemala (Petén), southern Mexico, Nicaragua, and Costa Rica. It is, of course, also known from Panama, Colombia, French Guiana, and Venezuela.

Dr. López-Palacios, in a personal communication to me, points out that A. deppeana, at least insofar as it occurs in Venezuela, is very similar in the herbarium to A. glandulifera var. pyramidata L. C. Rich. & Moldenke, but is more densely pubescent in all its parts and not ultimately glabrescent and the calyx is 5-toothed rather than subtruncate. While known thus far only from "Steyermark 101376" from Apure, he maintains that it is to be expected in other Venezuelan localities, especially in those states adjacent to the Colombian boundary.

Material has been misidentified and distributed in some herbaria as A. cephalophora Standl., but the latter species is easi-

ly distinguished by its more capitate-congested inflorescences and white, closely appressed, antrorse pubescence on the branches. The Biolley 4052, cited below, was originally distributed as Buddleia elliptica Mart. & Gal.

Additional & emended citations: MEXICO: Chiapas: Seler & Seler 2005 (W--1205967). Hidalgo: Liebmann 11302 (W--1315085), 11303 (W--1315086). Nayarit: E. W. Nelson 2245 (F--599759). Oaxaca: Martínez-Calderón 418 (W--1808132). Tamaulipas: Schiede 1105 (F--6142204--photo of type). Veracruz: Chavelas P., Esparza, & Aceves ES.2784 (Ip), ES.2848 (Ip); Liebmann 11936 (F--601252, W--1406645); Orcutt 3057 (Du--155167, F--279111), 3418 (F--280123); Ventura A. 3382 (N); Ll. Williams 8872 (F--898000). State undetermined: Sessé, Mociffo, Castillo, & Maldonado 603 (F--847809), 1074 (F--849273). MEXICAN OCEANIC ISLANDS: Juana Ramirez: Edw. Palmer 464 (W--463388). Maria Madre: Maltby 90 (W--314836), 107 (W--314852, W--573957), 146 (W--314891), s.n. (W--573876); E. W. Nelson 4245 (W--347988), 4254 (F--600636, W--345997). GUATEMALA: Petén: Ortiz 714 (N). COSTA RICA: Alajuela: Biolley 4052 (W--1362972). Guanacaste: Dodge & Thomas 6189 (E--1158819); Standley & Valerio 46358 (W--1254599), 46582 (W--1254721). San José: Ørsted 11179 (W--1269900). Department undetermined: C. W. Dodge 6189 (F--891800). PANAMA: Chiriqui: H. Pittier 2842 (W--677299). Los Santos: Lewis, MacBryde, Oliver, & Ridgway 1559 (E--1887577, W--2545846), 1566 (E--1887676, W--2545889); Stern, Eyde, & Ayensu 1828 [wood spec. USW.33652] (E--1835861, W--2490307), 1876 [wood spec. USW. 33687] (E--1837132, W--2490164); Tyson, Dwyer, & Blum 2988 (E--1820900), 3100 (E--1820899). COLOMBIA: Antioquia: Uribe Uribe 5874 (N). Atlántico: Dugand G. 950 (F--848980); Elias 1621 (F--931879). Bolívar: F. W. Pennell 4099 (W--1043004). Magdalena: Balbis s.n. [1822] (F--969771--photo); H. H. Smith 881 (Au, Ca--584905, D--528133, E--117695, F--137869, W--533248), 1864 (D--528134, E--117696, F--138706, W--533969). VENEZUELA: Apure: Steyermark, Bunting, & Blanco 101376 (Z).

#### AEGIPHILA DUCKEI Moldenke

Additional bibliography: Hill & Salisb., Ind. Kew. Suppl. 10: 5. 1947; Moldenke, Phytologia 7: 468. 1961; J. A. Steyer., Act. Bot. Venez. 1: 101. 1966; Moldenke, Fifth Summ. 1: 145 (1971) and 2: 845. 1971.

AEGIPHILA ELATA Sw., Nov. Gen. & Sp. Pl. Prodr. 31 [as "Aegiphila elata"]. 1788; J. F. Gmel. in L., Syst. Nat., ed. 13, pr. 1, 2: 259. 1789 [not A. elata Cham., 1851].

Additional & emended synonymy: Knoxia scandens foliis cordato-ovatis pedunculis multipartitis alaribus P. Browne apud Sw., Ind. Occid. 1: 254, in syn. 1797. Aegiphila foliis elliptico-acuminatis

membranaceis, paniculis terminalibus, calycibus pubescentibus Sw. apud Willd. in L., Sp. Pl., ed. 4, 1: 616, in syn. 1797. Nuxia ? elata (Sw.) Pers., Syn. Pl. 1: 132. 1805. Knoxia scandens P. Browne apud Poir. in Lam., Encycl. Méth. Suppl. 1: 151, in syn. 1810. Nuxia ? elata Pers. apud Roem. & Schult. in L., Syst. Veg., ed. 15 nova, 3: 102, in syn. 1818. Aegiphyla cornifolia Kunth apud Steud., Nom. Bot., ed. 2, 1: 29. 1840. Aegiphyla elata Sw. apud Steud., Nom. Bot., ed. 2, 1: 29. 1840. Aegiphyla laevis Poepp. ex Walp., Repert. Bot. Syst. 4: 119. 1845 [not A. laevis Aubl., 1789, nor (Aubl.) Gmel., 1789, nor (Aubl.) Sw., 1809, nor Bocq., 1920, nor Griseb., 1864, nor (Jacq.) Gmel., 1947, nor Juss., 1862, nor Vahl, 1851, nor Willd., 1797]. Aegiphyla macrophylla A. Rich. apud Griseb., Cat. Pl. Cuba 216, in syn. 1866 [not A. macrophylla Desf., 1821, nor Humb., 1818, nor Humb. & Bonpl., 1821, nor Humb. & Kunth, 1839, nor H.B.K., 1817, nor Kunth, 1839, nor Sieber, 1847]. Aegiphyla cornifolia Kunth apud Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46. 1893. Nuxia elata Pers. apud Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 2: 320, in syn. 1894. Aegiphyla sylvatica Sw. ex Moldenke, Brittonia 1: 462, in syn. 1934 [not A. sylvatica Moldenke, 1933]. Aegiphyla alata Sw. ex Moldenke, Brittonia 1: 462, in nota (1934) and Alph. List Invalid Names [1], in syn. 1942. Aegiphyla elata L. ex Moldenke, Brittonia 1: 462, in nota (1934) and Alph. List Invalid Names [1], in syn. 1942. Aegiphyla elata Sch. ex Moldenke, Alph. List Invalid Names [1], in syn. 1942. Aegiphylla elata Sw. ex Moldenke, Phytologia 1: 198, in syn. 1937. Aegiphyla levis Wright ex Moldenke, Résumé 229, in syn. 1959 [not A. levis (Aubl.) Gmel., 1934, nor Vahl, 1940]. Aegiphyla elata Steud. ex Uphof, Dict. Econ. Pl., ed. 2, 13. 1968.

Additional & emended bibliography: Sw., Nov. Gen. & Sp. Pl. Prodr. 31. 1788; J. F. Gmel. in L., Syst. Nat., ed. 13, pr. 1, 2: 52 & 259 (1789) and ed. 13, pr. 2, 2: 42 & 259. 1796; Raeusch., Nom. Bot., ed. 3, 37. 1797; Pers., Syn. Pl. 1: 132. 1805; Pers., Sp. Pl. 1: 340. 1817; H.B.K., Nov. Gen. & Sp. Pl., ed. folio, 2: 203 (1817) and ed. quart., 2: 251. 1818; Roem. & Schult. in L., Syst. Veg., ed. 15 nova, 3: 102 & [535]. 1818; Steud., Nom. Bot. Phan., ed. 1, 16. 1821; Kunth, Vier Bot. Abhandl. 15—16. 1832; Part., Pock. Bot. Dict., ed. 1, 8 (1840) and ed. 2, 8. 1849; Schau. in Mart., Fl. Bras. 9: 287 & [309—310]. 1851; Bocq., Rév. Verbenac. 190. 1863; A. S. Hitchc., Rep. Mo. Bot. Gard. 4: 118. 1893; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46 (1893) and pr. 1, 2: 320 & 341. 1894; Barnhart, Bull. Torrey Bot. Club 29: 590. 1902; Donn. Sm., Bot. Gaz. 57: 426. 1914; Moldenke, Brittonia 1: 252, 254, 257—260, 264, 275, 279, 320, 364, 395—397, 422, 449, 462—466, & 472—477. 1934; Yunker, Field Mus. Publ. Bot. 9: 329. 1940; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 46 (1946) and pr. 2, 2: 320 & 341. 1946; Hansford, Proc. Linn. Soc. Lond. 160: 134. 1948; Asprey & Robbins, Ecolog.

Monog. 23: 374 & 411. 1953; Ciferri, Mycopath. 7: 180. 1954; Hansford, Sydowia 10: 46. 1957; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 3, 1: 46 (1960) and pr. 3, 2: 320 & 341. 1960; Hansford, Ann. Myc., ser. 2, Beih. 2: 687. 1961; Liogier, Rhodora 67: 350. 1965; Moldenke, Phytologia 13: 323-324. 1966; Moldenke, Résumé Suppl. 16: 3 & 14 (1968) and 17: 2. 1968; Uphof, Dict. Econ. Pl., ed. 2, 13. 1968; Dennis, Kew Bull. Addit. Ser. 3: 258. 1970; Gibson, Fieldiana Bot. 24 (9): 171. 1970; Moldenke, Fifth Summ. 1: 27, 66, 78, 81, 82, 86, 89, 94, 99, 102, 104, 109, 111, 114, 121, 128, 131, 133, 354, 377-381, & 383-385 (1971) and 2: 533, 574, 576, 614, 845, & 967. 1971; C. D. Adams, Flow. Pl. Jam. 634, 635, & 800. 1972; Moldenke, Phytologia 23: 417 (1972) and 25: 228, 235, & 240. 1973.

Recent collectors describe this plant as a vine or woody vine in trees, a vine-like, scandent, or somewhat scandent shrub, 2-3.5 m. tall, often slightly straggling and even to 20 feet high. Steyermark describes the leaves as "firmly membranous, rich-green above, pale-green beneath, richly venose beneath; calyx olive-green", while Breteler says "leaves with glands along the midrib, papery, slightly glossy, medium-green above, paler beneath; calyx pale-green; corolla-tube about 8 mm. long". The fruit is described as yellow-green, yellow, or orange-yellow. The corollas were "yellow" on Breteler 3921, Bristan 592, and Webster & Wilson 5037, "creamish" on Gentle 4457, "pale-yellow" on Gentle 6752, Molina R., Williams, Burger, & Wallenta 17488, and Steyermark, Bunting, & Blanco 101646, "yellowish-white" according to Yuncker (1940), and "greenish" on Croat 5506. Pollen specimens were taken from Gentle 6752 for the palynological reference collection at the University of Texas.

The species has been collected by recent botanists in cafetal, thickets on foothills, woods bordering savannas, open sites at the edge of rivulets, and cutover forest areas in barrancos, and on steep wooded limestone slopes or grass-covered rocky banks in cloud-forest-subparamo regions, at altitudes of 200 to 1000 meters, flowering in May, and fruiting in February, April, and September (in addition to months previously reported by me in this series of notes). The vernacular names, "Juan grande" and "spirit weed", are recorded for it.

It should be noted here that the H.B.K. reference dates, cited in the emended bibliography above, have been authenticated by the late Dr. J. H. Barnhart (1902). It should be noted that the A. macrophylla of Desfontaines, referred to in the synonymy above, is actually a synonym of A. martinicensis Jacq., that accredited to Sieber belongs in the synonymy of Warscewiczia coccinea (Vahl) Klotzsch, while that accredited to Humboldt, to Humboldt & Bonpland, to Humboldt & Kunth, to Humboldt, Bonpland, & Kunth, or to Kunth alone will be discussed in full by my friend, Dr. López-Palacios in a paper now in preparation by him. The A. laevis of Grisebach is a synonym of A. laxiflora Benth., while the seven other homonyms of this name belong in the synonymy of A. laevis



(Aubl.) Gmel., where A. levis (Aubl.) Gmel. and A. levis Vahl also belong.

Adams (1972) asserts that in Jamaica A. elata is "Rather common, on banks and in hillside thickets" from sea-level to 4000 feet altitude, flowering "most of the year", fruiting from April to September. He cites Adams 6655 & 11200, Jamaican Plants 1155, and Proctor 23913, giving the species' overall distribution as "Mexico to Venezuela, Greater Antilles, Martinique, Barbados; Grand Cayman". He comments that "The only really well known species of Aegiphila in Jamaica is A. elata. When other more complete material has been examined and compared in the living state, and differences in floral structure inherent in the heterostylous or incipient dioecious conditions are understood, besides the full ranges of hairiness, inflorescence-branching and leaf-shape, a drastic taxonomic revision may be required."

Uphof (1968) states that the leaves of A. elata are used in the treatment of ulcers, diarrhoea, and dysentery. Hansford (1961) reports the fungus, Asteridiella aegiphilae Hansf. [Irenina aegiphilae Hansf., Meliola renovata Cif.], growing on Aegiphila elata in Hispaniola, Cuba, and Trinidad, basing his record on Ciferri 52, Wright 406 & 563, Wright Fung. Cub. 883, and Baker s. n. [IMI 19361]. Dennis (1970) also records it on this host in Trinidad.

Gooding, Loveless, & Proctor (1965) tell us that A. elata was reported from Barbados by Maycock, but that there is no confirming specimen of it in the herbarium of the Barbados Museum.

Dr. López-Palacios, in a personal communication to me, states that the Aristeguieta & Pannier 1856, cited by me as A. elata in a previous installment of these notes, actually represents a variety of this species which he plans to describe shortly. It is therefore very possible that some of the other Venezuelan and perhaps other South American material previously cited a typical A. elata may prove to represent this new variety, differing in its ovate leaf-blades and more arborescent growth.

Material of A. elata has been misidentified and distributed in some herbaria as belonging to the Rubiaceae.

Additional & emended citations: MEXICO: Oaxaca: Ll. Williams 9281 (F-897603), 9354 (F-897511). Tabasco: Matuda 3031 (F-1027180), 3081 (F-1027529), 3406 (F-1027129, Ws); Rovirosa 421 (W-1323309). Veracruz: Ll. Williams 9143 (F-897406), 9271 (F-897496), 9566 (F-897916). GUATEMALA: Alta Verapaz: Türckheim 7961 (W-398422, W-1323277). El Petén: Contreras 6170 (Au). Izabal: Contreras 7603 (Au); P. C. Standley 23981 (W-1139642), 24088 (W-1139750), 24684 (W-1150503). BRITISH HONDURAS: Burns 10 (F-659150); Gentle 2633 (F-1005313), 2843 (F-1003765), 3047 (F-1003922), 4457 (MI), 6752 (Au-224739); Schipp 216 (Ca-396542, E-989391, F-659054, W-1588527). HONDURAS: Atlántida: P. C. Standley 53746 (F-584266, W-1407930), 53758 (F-583373, W-

1407940), 54259 (F--583549, W--1408204), 54759 (F--584263, W--1408461), 55166 (F--583280, W--1408699); Yunker 4749 (F--749212); Yunker, Koeppe, & Wagner 8377 (F--944949). Cortés: Carleton 485 (W--1208469), 638 (W--1208538). Santa Bárbara: Thieme 5412 (F--574647, W--1323274). Yoro: Severén 69 (W--1168343); P. Wilson 656 (W--1323279). COSTA RICA: Alajuela: Brenes 6193 (F--854881), 20535 (F--865969); Molina R., Williams, Burger, & Wal-lenta 17488 (N). Cartago: A. Gentry s.n. [August 17, 1967] (Ws). Limón: Standley & Valerio 48701 (W--1305670). Puntarenas: H. Pittier, Herb. Inst. Physico-geogr. Nac. C. R. 12017 (W--1323278); Tonduz, Herb. Inst. Physico-geogr. Nac. C. R. 6782 (W--1080308). PANAMA: Colón: J. A. Duke 15269 (Oh). Darién: Bristan 592 (E--1938941, Rh). Panamá: R. S. Williams 829 (W--678310, W--1316809). Barro Colorado Island: Croat 5506 (Ac, N). CUBA: Las Villas: Britton & Britton 5086 (F--284074); Jack 7029 (W--1476532). Ori-ente: Shafer 1762 (F--285028, W--659916), 4384 (F--286394, W--697695), 8804 (W--696653); C. Wright 429 (E--117708), 1354 (E--117709). Pinar del Río: Curtiss III s.n. (F--134869). Province undetermined: Eggers 5184 (W--1323276); Sagra "X" (N). CAYMAN ISLANDS: Grand Cayman: A. S. Hitchcock s.n. [Grand Cayman, 1-17-'91] (E--117711, E--117712, E--117713); Millspaugh 1281 (F--61281); Rothrock 158 (F--245011), 235 (F--245025). JAMAICA: Crawford 758 (D--539391); Fawcett 8012 (F--146412); Harris 6064 (F--145657), 10021 (F--243075, W--656838), 10726 (F--250563), 11082 (F--325140, W--699871), 11746 (E--792562, F--438764, W--790808); Hart s.n. (W--1323275); A. S. Hitchcock s.n. (E--117707); Maxon 8820 (W--1182376); Maxon & Killip 747 (F--500733, W--1046340); Nichols 75 (E--117706, F--146993, W--429029); Webster & Wilson 5037 (Mi). HISPANIOIA: Dominican Republic: Abbott 1368 (W--1079007), 2386 (W--1079669); Eggers 1602 (W--1323280); Ekman H. 13279 (W--1557852). Haiti: Bertero 35, in part (E--117705); Ekman H. 5151 (W--1412587); Leonard & Leonard 13072 (W--1451753, W--1451754). TRINIDAD & TOBAGO: Trinidad: Trin. Bot. Gard. Herb. 2384 (W--1323273), 2387 (W--1323317), 2390 (W--1361144). COLOM-BIA: Arauca: López-Palacios 2007 (Ft). Chocó: Romero Castañeda 6108 (N). Tolima: Pérez-Arbeláez & Cuatrecasas 6529 (W--1774219). Valle del Cauca: F. C. Lehmann 8410 (F--689793). VENEZUELA: Apure: Steyermark, Bunting, & Blanco 101646 (Rf). Bolívar: J. A. Steyermark 86729 (N); Ll. Williams 12828 (W--1800774). Cara-bobo: Kuntze 1730 (F--297789). GUYANA: De la Cruz 3320 (Ca--300630, D--622683, E--908866, F--544018, W--1285593). SURINAM: Samuels s.n. [Forest of Zandery] (W--538022). FRENCH GUIANA: W. E. Broadway 421 (W--1068700), 651 (W--1068833). BOLIVIA: Santa Cruz: J. Steinbach 3259 (F--552945). CULTIVATED: Florida: Gillis

9915 (Go); Popenoe 32 (Ar—19746, Ar—19747).

**AEGIPHILA ELEGANS Moldenke**

Additional & emended bibliography: Moldenke, *Brittonia* 1: 186 (1932) and 1: 259, 278, 444, 442, 458—461, 474, & 476. 1934; A. W. Hill, *Ind. Kew. Suppl.* 9: 6. 1938; Fedde & Schust. in *Just, Bot. Jahresber.* 60 (2): 569. 1941; Moldenke, *Inform. Mold. Set 51 Spec.* [1]. 1956; J. F. Macbr., *Field Mus. Pub. Bot.* 13 (5): 704 & 707. 1960; Moldenke, *Phytologia* 13: 324 (1966) and 14: 427. 1967; Moldenke, *Fifth Summ.* 1: 114, 134, 138, 145, & 181 (1971) and 2: 845. 1971.

Macbride (1960) cites Killip & Smith 26338 from Junín and Killip & Smith 27055 & 27991 from Loreto, Peru. He also quotes Asplund to the effect that the branches of this plant are subscaudent and the fruits orange, and says that it occurs also in Brazil (actually also in Colombia and Ecuador). Krukoff refers to it as a vine.

Emended citations: PERU: Junín: Killip & Smith 26338 (F—632905, W—1460292). Loreto: Killip & Smith 27055 (F—632952—*isotype*, W—1460858—*type*), 27562 (F—633137, W—1461298), 27991 (F—615849, W—1461656). BRAZIL: Amazonas: Krukoff 8701 (F—927878).

**AEGIPHILA ELONGATA Moldenke**

Additional bibliography: A. W. Hill. *Ind. Kew. Suppl.* 9: 6. 1938; Fedde & Schust. in *Just, Bot. Jahresber.* 60 (2): 567. 1941; Moldenke, *Phytologia* 7: 469—470. 1961; Moldenke, *Fifth Summ.* 1: 181 (1971) and 2: 845. 1971.

Emended citations: BOLIVIA: La Paz: Buchtien 1645 (F—642206—*photo of type*, W—1399450—*type*).

**AEGIPHILA EXIGUIFLORA Moldenke**

Additional bibliography: Hill & Salisb., *Ind. Kew. Suppl.* 10: 5. 1947; Moldenke, *Phytologia* 7: 470. 1961; Moldenke, *Fifth Summ.* 1: 145 (1971) and 2: 845. 1971.

**AEGIPHILA FALCATA** Donn. Sm., *Bot. Gaz.* 18: 7 [as "Aegyphila falcata"]. 1893; Durand & Jacks., *Ind. Kew. Suppl.* 1, pr. 1, 12. 1901.

Synonymy: Aegyphila falcata Donn. Sm., *Bot. Gaz.* 18: 7. 1893. Aegipjila falcata Donn. Sm. ex Moldenke, *Résumé Suppl.* 18: 8, in *syn.* 1969. Aegiphila martinicensis f. falcata (Donn. Sm.) Gibson, *Fieldiana Bot.* 32: 176. 1970.

Additional & emended bibliography: Durand & Jacks., *Ind. Kew. Suppl.* 1, pr. 1, 12. 1901; Donn. Sm., *Bot. Gaz.* 57: 426. 1914; Moldenke, *Brittonia* 1: 247, 252, 270, 363—364, 373, 465, 467, 473, 475, & 476. 1934; Durand & Jacks., *Ind. Kew. Suppl.* 1, pr. 2, 12 (1941) and pr. 3, 12. 1959; Moldenke, *Phytologia* 7: 470. 1961; Moldenke, *Résumé Suppl.* 16: 3 (1968), 17: 2 (1968), and

18: 8. 1969; Gibson, Fieldiana Bot. 32: 176. 1970; Anon., Biol. Abstr. 52 (6): B.A.S.I.C. S.7. 1971; Fryxell, Biol. Abstr. 52: 3079. 1971; Moldenke, Phytologia 20: 488. 1971; Moldenke, Fifth Summ. 1: 66, 78, 86, 89, 381, 384, & 385 (1971) and 2: 845. 1971.

Recent collectors describe this species as a vine, as a shrub with several spreading leafy branches, 2 m. tall, or even as a tree, 6--8 m. tall, the branches and leaves horizontal, the inflorescence pendulous, both terminal and axillary, the calyx green, and the corolla varying in shape. The corolla is said to have been "yellow" on Burger & Liesner 6878 and Lewis, Dwyer, Elias, & Robertson 857, "yellowish-white" on Jiménez M. 4134, "greenish-yellow" on Wedel 1351, "greenish" on J. A. Duke 3805, and "white" on Ebinger 954 and Jiménez M. 3419.

The species has been found growing on partly shaded gravel banks near rivers, in banana and cacao plantations on level areas, in remnant forests on steep hills, in secondgrowth forests, in clearings and open grazed areas, and at the edges of railroads and rivers and adjacent rainforests, at altitudes of 50 to 200 meters, flowering in August, October, and December (in addition to months previously reported by me in this series of notes). Material has been misidentified and distributed in some herbaria as A. paniculata Moldenke and Callicarpa acuminata H.B.K.

Additional & emended citations: MEXICO: Chiapas: F. Miranda 7632 (W--2508314); Purpus 6982 (Ca--172791), 7521 (Ca--187701). GUATEMALA: Escuintla: J. D. Smith 2111 (F--633314--photo of type, W--55747--isotype, W--1323285--type). Quezaltenango: Tonduz & Rojas 148 (W--1014892). Retalhuleu: Rojas 584 (W--184714, W--1080741); J. D. Smith 1479 (F--642208--photo, W--44613, W--1323281). Suchitepéquez: Maxon & Hay 3617 (W--473550). COSTA RICA: Cartago: H. Pittier 11244 (W--1323284), 13216 (W--354412, W--1323286). Heredia: Jiménez M. 3419 (N), 4134 (N). Limón: Burger & Liesner 6878 (N). PANAMA: Bocas del Toro: Dunlap 26 (F--579985); Lewis, Dwyer, Elias, & Robertson 857 (E--1881643); H. Pittier 8643 (W--1323282); Stork 26 (W--1166818); Tonduz 8627 (W--1323283), 9292 (W--354257, W--1323287), 9293 (W--577235, W--1323288); Wedel 1351 (E--1228054). Coclé: Ebinger 954 (E--1938931). Panamá: J. A. Duke 3805 (Ca--1213136, E--1786041). Barro Colorado Island: Ebinger 243 (E--1938934).

#### AEGIPHILA FARINOSA Moldenke

Additional bibliography: E. J. Salisb., Ind. Kew. Suppl. 11: 5. 1953; Cuatrecasas, Revist. Acad. Colomb. Cienc. 10: 246. 1958; Moldenke, Phytologia 13: 324. 1966; Moldenke, Fifth Summ. 1: 114 (1971) and 2: 845. 1971.

Cuatrecasas (1958) reports that this species inhabits the "selva subandina".



**AEGIPHILA FASCICULATA** Donn. Sm.

Additional & emended bibliography: Prain, Ind. Kew. Suppl. 5, pr. 1, 6 (1921) and pr. 2, 6. 1960; Moldenke, Phytologia 7: 470—471. 1961; Gibson, Fieldiana Bot. 24 (9): 170 & 171. 1970; Moldenke, Fifth Summ. 1: 78, 85, & 379 (1971) and 2: 845. 1971.

Recent collectors describe this plant as a weak tree, 5—6 m. tall, and have found it growing in forests, montane or cloud forests, and cutover cloud forests, at 1400 to 1600 meters altitude, in fruit in January and March.

Additional & emended citations: GUATEMALA: Alta Verapaz: Türckheim 4013 (F—633315—photo of type, W—1323289—isotype, W—1323290—isotype, W—1323291—type); Williams, Molina R., Williams, & Molina 40143 (N). NICARAGUA: Matagalpa: Molina R. 20573 (N); Williams, Molina R., Williams, Gibson, & Laskowski 27757 (N).

**AEGIPHILA FENDLERI** Moldenke

Additional bibliography: A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941; Moldenke, Phytologia 13: 324—325. 1966; Moldenke, Résumé Suppl. 16: 5. 1968; Moldenke, Fifth Summ. 1: 121 & 145 (1971) and 2: 845. 1971.

Recent collectors describe the pubescence on this plant as ferruginous and the leaf-blades as membranous, dull-green above and pale-green beneath, and have found the plant growing at altitudes of 1200—2130 meters, blooming in November.

Additional & emended citations: VENEZUELA: Aragua: Chardon 189 (W—1801130). Yaracuy: Steyermark, Bunting, & Wessel-Boer 100229 (N, Rf).

**AEGIPHILA FERRUGINEA** Hayek & Spruce ex Hayek in Engl., Bot. Jahrb. 42: 171. 1909 [not A. ferruginea Glaz., 1911].

Synonymy: Aegiphila ferruginea Hayek ex Moldenke, Suppl. List Invalid Names [1], in syn. 1941.

Additional & emended bibliography: Prain, Ind. Kew. Suppl. 4, pr. 1, 5 (1913) and pr. 2, 5. 1958; Moldenke, Phytologia 13: 325. 1966; Moldenke, Fifth Summ. 1: 134 & 379 (1971) and 2: 845. 1971.

Additional & emended citations: ECUADOR: Azuay: Asplund 17761 (N). Carchi: Mexia 7446 (Ar—14031). Chimborazo: Rimbach 616 (F—839581). Imbabura: F. C. Lehmann 4700 (F—578233, W—1323293). Pichincha: Firmin 632 (F—615718—photo, W—1440698); Penland & Summers 939 (F—1015427); Spruce 5473 (F—642207—photo of isotype, F—686830—isotype, F—868893—isotype).

**AEGIPHILA FILIPES** Mart. & Schau.

Additional synonymy: Aegiphila filipes Mart. ex Schau. in Mart., Fl. Bras. 9: 286. 1851. Aegiphila filipes Mart. & Zucc. ex Moldenke, Phytologia 4: 353, in syn. 1953.

Additional & emended bibliography: Schau. in Mart., Fl. Bras. 9: 286 & [309—310]. 1851; Jacks. in Hook. f. & Jacks., Ind. Kew.,

pr. 1, 1: 46. 1893; Moldenke, Brittonia 1: 247, 252, 272, 366—368, 371, 384, 389, 395, 428, 473, & 475—477. 1934; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 46 (1946) and pr. 3, 1: 46. 1960; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 703, 708, 709, 712, 716, & 720. 1960; Moldenke, Phytologia 13: 325 & 332. 1966; Moldenke, Résumé Suppl. 16: 5 (1968) and 17: 2. 1968; Moldenke, Fifth Summ. 1: 89, 114, 121, 138, 145, 181, 379, & 381 (1971) and 2: 845. 1971.

Recent collectors describe this plant as a liana or a slender shrub, 2.5—3 m. tall, the leaves papery, pale-green, slightly glossy above, dull beneath, the calyx pale-green, and the fruit yellowish-green or yellow when young, red when ripe. They have found it growing on terra firma and in moist sites with low vegetation, at 1850 meters altitude, flowering in November, and fruiting in April and November (in addition to months previously reported by me). The variant vernacular name, "chirapa sachá", is also recorded. The corollas are said to have been "white" on F. R. Fosberg 29039 and Prance, Coêlho, Ramos, & Farias 7787 and "yellow" on Breteler 4081. A wood sample has been taken from the last-mentioned collection. Fosberg reports that the species is "said to be used medicinally" and that his specimen was collected from "garden fence sticks that took root".

Macbride (1960) cites Asplund 14111, Killip & Smith 26882, Tessmann 3705, and Ll. Williams 533, 2469, 2622, 2850, 2856, and 8190 from Loreto, Peru, and gives the overall distribution of the species as "To Panama and Bolivia; Brazil". The J. A. Duke 4114, cited below, was previously incorrectly distributed as and reported by me as A. martinicensis Jacq. The Dodson 2834 & 2881, distributed as A. filipes, are actually A. glandulifera Moldenke, while Romero Castañeda 5430 is a species of Cestrum in the Solanaceae.

Additional & emended citations: PANAMA: Darién: J. A. Duke 4114 (E—1772186). Panamá: P. C. Standley 26853 (W—1217295). COLOMBIA: Caquetá: Romero Castañeda 4123 (N). Huila: Pérez Arbeláez & Cuatrecasas 8360 (W—1795002). Magdalena: H. H. Smith 1831 (D—509230, E—117694, F—138678, W—533752, Ws). VENEZUELA: Trujillo: Breteler 4081 (N, W—2466260, W—2466261). PERU: Loreto: F. R. Fosberg 29039 (Z); Killip & Smith 26882 (W—1460709); Ll. Williams 533 (F—603696), 2165 (F—608788), 2469 (F—608615), 2622 (F—612910), 2778 (F—608716), 2832 (F—608766), 2850 (F—608782), 2856 (F—608195), 3115 (F—613033), 3146 (F—613044), 8190 (F—626824). BRAZIL: Acre: Prance, Coêlho, Ramos, & Farias 7787 (Ac, N). Amazonas: Ducke 6735 (W—1040344); Krukoff 5125 (Ca—606303, F—811000), 8041 (F—928927), 8042 (F—930025); Spruce 1761 (F—686541). Pará: Martius s.n. [Macbride photos 20350] (F—684157—photo of cotype). BOLIVIA: El Beni: H. H. Rusby 2472 (W—1323301).

AEGIPHILA FLORIBUNDA Moritz & Moldenke

Synonymy: Aegiphila floribunda Moldenke apud Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941.

Additional & emended bibliography: Moldenke, Brittonia 1: 271, 272, 371—374, & 473—475. 1934; A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941; Moldenke, Phytologia 13: 325. 1966; Moldenke, Résumé Suppl. 16: 5. 1968; Moldenke, Fifth Summ. 1: 121 (1971) and 2: 786 & 845. 1971; Moldenke, Phytologia 25: 228 & 235. 1973.

Steyermark and his associates describe this plant as a tree, 3 meters tall, the leaves membranous, rich-green above, dull-green beneath, the pedicels pale-green, and the corolla creamy-yellow. They found it growing at 1750—1800 m. altitude, flowering in August. Local botanists identified it as possibly A. laxiflora Benth.

The Breteler 3921, cited below, is placed here only tentatively. The United States National Herbarium specimen of this collection is in very young bud and is therefore very difficult to place with any certainty. According to the collector's label, the plant was in full bloom at the time of collection, so it is hoped that I may eventually see better material of the collection and then verify or disprove the present identification. Breteler describes the plant as a shrub, 2 m. tall, slightly straggling in habit, the leaves papery, slightly glossy, medium-green above, paler beneath, with glands along the midrib, the calyx pale-green, and the corolla yellow, its tube about 8 mm. long. He found the plant growing in an open site along the edge of a rivulet, at 350 m. altitude, flowering in May.

Additional & emended citations: VENEZUELA: Aragua: Moritz 1765 (F—976283—photo). Barinas: Breteler 3921 (W—2465845). Lara: Steyermark, Delascio, Dunsterville, & Dunsterville 103520 (N, W—2621902).

AEGIPHILA FLUMINENSIS Vell.

Additional & emended synonymy: Aegiphyla fluminensis Arrab. apud Steud., Nom. Bot., ed. 2, 1: 29. 1840. Aegiphila fluminensis Arrab. apud Walp., Repert. Bot. Syst. 4: 120. 1845. Aegiphila fluminensis Sw. ex Bocq., Adansonia, ser. 1, 3: 190. 1862.

Aegiphila fluminensis Vell. ex T. Peckolt, Bericht. Deutsch. Pharm. Gesell. 14: 478, sphalm. 1904. Aegiphila fluminensis Phil. ex Moldenke, Brittonia 1: 316, in nota. 1934; Prelim. Alph. List Invalid Names 2, in syn. 1940. Aegiphila fluminensis Vahl ex Moldenke, Brittonia 1: 316, in nota. 1934; Prelim. Alph. List Invalid Names 2, in syn. 1940.

Additional & emended bibliography: Schau. in Mart., Fl. Bras. 9: 283 & [309--310]. 1851; Bocq., Rév. Verbenac. 190. 1863; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46. 1893; T. Peckolt, Bericht. Deutsch. Pharm. Gesell. 14: 478. 1904; Glaz., Bull. Soc. Bot. France 58 [ser. 4, 11], Mém. 3: 546. 1911; Jacks. in Hook. f.

& Jacks., Ind. Kew., pr. 2, 1: 46 (1946) and pr. 3, 1: 46. 1960; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 711 & 717. 1960; Angely, Fl. Anal. Paran. ed. 1, 579. 1965; Moldenke, Phytologia 13: 325. 1966; Moldenke, Résumé Suppl. 16: 14. 1968; Angely, Fl. Anal. Fitogeogr. Est. S. Paulo, ed. 1, 4: 826 & 1. 1970; Moldenke, Fifth Summ. 1: 145, 379, 382, & 384 (1971) and 2: 845. 1971.

Peckolt (1904) says of this plant: "Auf den Gebirgen des Staates Rio de Janeiro vorkommend, mit der Benennung Sabugueira do mato -- Wilder Flieder. Bis 3 m hoher Strauch mit kahlen, länglichen, langgespitzten, oberseits glänzend grünen, unterseits mattgrünen Blättern. Weisse Blüten in achselständigen vielblütigen Cymen. Frucht beerenartig, karmesinrot, von der Grösse einer Johannisbeere; ein beliebtes Fressen der Vögel. Blüten und Blätter sollen schweisstreibend wirken."

It should be noted that some, or even many or all, of the collections cited hitherto and herewith from Rio de Janeiro state may actually have come from what is now known as Guanabara, since their labels are mostly inscribed only "Rio de Janeiro" and one cannot be certain from this if the city itself (now Guanabara) or the surrounding state of that name is intended.

Additional & emended citations: BRAZIL: Bahia: Blanchet 1603 (F-686586). Guanabara: Guillemin 248 (P). Rio de Janeiro: Luschnath s.n. [Brasilia] (E-117682); L. Riedel 0,40 (F-605885); United States Exploring Exped. [Wilkes] s.n. [Rio de Janeiro] (W-44617).

AEGIPHILA FOETIDA Sw., Nov. Gen. & Sp. Pl. Prodr. 32 [as "Aegiphila foetida"]. 1788; J. F. Gmel. in L., Syst. Nat., ed. 13, pr. 1, 2: 259. 1789.

Additional & emended synonymy: Aegiphila foetida Sw., Nov. Gen. & Sp. Pl. Prodr. 32. 1788. Aegiphyla foetida Sw. apud Steud., Nom. Bot., ed. 2, 1: 29. 1840. Aegiphila pubescens W. Wright ex Moldenke, Phytologia 1: 202, in syn. 1937 [not A. pubescens Willd., 1840]. Aegiphila foetida Urb. ex Moldenke, Phytologia 7: 472, sphalm. 1961.

Additional & emended bibliography: Sw., Nov. Gen. & Sp. Pl. Prodr. 32. 1788; J. F. Gmel. in L., Syst. Nat., ed. 13, pr. 1, 2: 259 (1789) and pr. 2, 2: 259. 1796; Roem. & Schult. in L., Syst. Veg., ed. 15 [Stuttg.], 3: 102 & [535]. 1818; Steud., Nom. Bot. Phan., ed. 1, 16. 1821; Paxt., Pock. Bot. Dict., ed. 1, 8 (1840) and ed. 2, 8. 1849; Bocq., Rév. Verbenac. 190. 1863; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46. 1893; Moldenke, Brittonia 1: 254, 264, 357-359, 472, 473, 475, & 476. 1934; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 46 (1946) and pr. 3, 1: 46. 1960; Moldenke, Phytologia 7: 472-473. 1961; Moldenke, Résumé Suppl. 14: 5 (1966) and 16: 14. 1968; Moldenke, Fifth Summ. 1: 99, 377, 379, 382, & 384 (1971) and 2: 845. 1971; C. D. Adams, Flow. Pl. Jam. 634-635 & 800. 1972.

Adams (1972) describes this plant as "Rare....in woodland on limestone; 1500-2000 feet" altitude, fruiting in January, "endem-



ic". He cites Alexander Prior s.n., Howard & Proctor 15047, and Proctor 23967 from Jamaica.

Emended citations: JAMAICA: Alexander Prior s.n. [Jamaica, 1850] (E--862842, F--642214--photo, W--1048216, W--1048352); Swartz s.n. (F--633325--photo of type).

#### AEGIPHILA FROESI Moldenke

Additional bibliography: E. J. Salisb., Ind. Kew. Suppl. 11: 5. 1953; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 706. 1960; Moldenke, Phytologia 7: 473. 1961; Moldenke, Fifth Summ. 1: 145 (1971) and 2: 845. 1971.

Prance and his associates describe this plant as a shrub, 1 m. tall, with cream-colored flowers, and found it growing on varzea land, flowering in April. It has been misidentified and distributed in some herbaria as Boraginaceae.

Additional citations: BRAZIL: Acre: Prance, Maas, Kubitzki, Steward, Ramos, Pinheiro, & Lima 12505 (Z).

#### AEGIPHILA GLABRATA Moldenke

Additional bibliography: Moldenke, Brittonia 1: 186--187. 1932; A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 569. 1941; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 702, 703, & 708--709. 1960; Moldenke, Phytologia 13: 325--326. 1966; Moldenke, Fifth Summ. 1: 138 (1971) and 2: 845. 1971.

Macbride (1960) affirms that this species is probably related to A. martinicensis Jacq. and A. filipes Mart. & Schau. He cites only Asplund 12335 from Huámuco and Killip & Smith 25503 from Junín, Peru.

Additional & emended citations: PERU: Junín: Killip & Smith 25503 (F--607716--isotype, W--135969--type). Loreto: Wurdack 2390 (N).

#### AEGIPHILA GLANDULIFERA Moldenke

Additional & emended bibliography: Moldenke, Brittonia 1: 187--188 (1932) and 252, 269, 272, 364--366, 368, & 472--477. 1934; A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568 & 569. 1941; Cuatrecasas, Revist. Acad. Colomb. Cienc. 10: 232. 1958; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 703 & 709. 1960; Moldenke, Phytologia 13: 326 & 334. 1966; Acosta-Solis, Divis. Fitogeogr. Ecuad. 112. 1968; Moldenke, Résumé Suppl. 16: 5 (1968) and 17: 2. 1968; El-Gazzar & Wats., New Phytol. 69: 483 & 485. 1970; Gibson, Fieldiana Bot. 24 (9): 172. 1970; Moldenke, Fifth Summ. 1: 86, 89, 114, 121, 134, 139, 145, & 379 (1971) and 2: 845--846. 1971; Moldenke, Phytologia 23: 417 (1972) and 25: 235. 1973.

Recent collectors describe this plant as an "herb, 1 m. tall", shrub, or even a tree, 2--10 m. tall, the trunk 60 cm. in diameter at breast height, and the fruit as yellow or orange. The leaves on the Tyson collection, cited below, are definitely punctate be-

neath. Collectors have found the plant growing in secondary tropical rainforests and "infrequent in capoeira", while Cuatrecasas (1958) refers to it as a denizen "en selva neotropical inferior". It has been found in flower in May, July, and August, and in fruit in September and November (in addition to months previously reported by me), growing at altitudes of 100--1000 meters. The corollas are described as having been "white" on Dodson 2834, Romero Castañeda 4212, and Tyson 2213, "greenish-white" on Scolnik 1150, "yellowish-white" on A. Fernandez 293, "yellow" on Wedel 2517, and "pale-green" on Murça Pires & Cavalcante 52546. Macbride (1960) cites Klug 3016 and Tessmann 3508 from Loreto, Peru, records the vernacular name "chirapasacha", and gives the overall distribution of the species as "To Costa Rica; Brazil". Gibson (1970) reduces the species to synonymy under the West Indian A. martinicensis Jacq., to which it is certainly related.

Material of A. glandulifera has been misidentified and distributed in some herbaria under the names A. martinicensis Jacq., A. panamensis Moldenke, A. paniculata Moldenke, and Aegiphyla pendula Moldenke.

Additional & emended citations: PANAMA: Bocas del Toro: Wedel 2517 (E--1240406, W--1892669). Canal Zone: H. Pittier 6519 (W--716582); Tyson 2213 (E--1817320). COLOMBIA: Antioquia: Woronow & Juzepczuk 4433 (F--605670). Caquetá: Romero Castañeda 4212 (N). Chocó: Archer 2057 (W--1519120); A. Fernandez 293 (N). Santander: Dawe 472 (W--1423256--type); Haught 1629 (W--1592096). VENEZUELA: Táchira: Berti 2047 (Ac). ECUADOR: Esmeraldas: Sparre 18105 (S). PERU: Loreto: Dodson 2834 (W--2587002), 2881 (W--2587003). BRAZIL: Amapá: Murça Pires & Cavalcante 52546 (N).

#### AEGIPHILA GLANDULIFERA var. PARAËNSIS Moldenke

Synonymy: Aegiphila gracilis Moldenke, Alph. List Invalid Names Suppl. 1: [1], in syn. 1947.

Additional & emended bibliography: Moldenke, Brittonia 1: 269, 272, 366, 472, & 474. 1934; Fedde & Schust. in Just, Bot. Jahrbuch. 60 (2): 568. 1941; Moldenke, Phytologia 13: 326. 1966; Moldenke, Fifth Summ. 1: 145 & 379 (1971) and 2: 845. 1971.

Emended citations: BRAZIL: Pará: Ginzberger 208 (F--934878); Killip & Smith 30661 (W--1356337--type); Krukoff 5923 (F--873477).

#### AEGIPHILA GLANDULIFERA var. PYRAMIDATA L. C. Rich. & Moldenke

Synonymy: Aegiphila pyramidata L. C. Rich. ex Moldenke, Phytologia 1: 204, in textu. 1937 [not A. pyramidata L., 1940].

Additional bibliography: Hill & Salisb., Ind. Kew. Suppl. 10: 5. 1947; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 709. 1960; Moldenke, Phytologia 7: 474. 1961; Moldenke, Fifth Summ. 1: 114, 121, 133, 145, & 382 (1971) and 2: 846. 1971; Moldenke, Phytologia 25: 235. 1973.

The A. pyramidata credited to Linnaeus (although never published by him) is a synonym of A. martinicensis Jacq.

**AEGIPHILA GLEASONII** Moldenke

Additional bibliography: A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941; Van Steenis, Fl. Males. 1: 194. 1950; Moldenke, Phytologia 7: 474. 1961; Moldenke, Fifth Summ. 1: 128 (1971) and 2: 846. 1971.

**AEGIPHILA GLOMERATA** Benth., Bot. Voy. Sulph. 154. 1846.

Additional & emended bibliography: Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46 (1893), pr. 2, 1: 46 (1946), and pr. 3, 1: 46. 1960; Moldenke, Phytologia 13: 326. 1966; Moldenke, Fifth Summ. 1: 134 & 137 (1971) and 2: 846. 1971.

Additional & emended citations: ECUADOR: Guayas: Asplund 15355 (N). Manabi: Eggers 15088 (F—143362, W—1323310).

**AEGIPHILA GLORIOSA** Moldenke

Additional & emended bibliography: Moldenke, Brittonia 1: 259, 277, 280, 449—450, 472, & 475. 1934; A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941; Moldenke, Phytologia 5: 152 (1955) and 7: 475. 1961; Moldenke, Fifth Summ. 1: 145 (1971) and 2: 846. 1971; Moldenke, Phytologia 23: 314 & 418. 1972; Moldenke, Biol. Abstr. 54: 3421. 1972; Anon., Biol. Abstr. 54 (7): B.A.S.I.C. S.8. 1972.

Additional & emended citations: BRAZIL: Bahia: Blanchet 1998 (F—686587—*isotype*). MOUNTED ILLUSTRATIONS: Moldenke, Phytologia 2: 437, fig. 2. 1948 (N—*drawing*).

**AEGIPHILA GLORIOSA** var. **PARAËNSIS** Moldenke, Phytologia 23: 314. 1972.

Bibliography: Moldenke, Phytologia 23: 314 & 418. 1972; Moldenke, Biol. Abstr. 54: 3421. 1972; Anon., Biol. Abstr. 54 (7): B.A.S.I.C. S.8. 1972.

Citations: BRAZIL: Pará: Silva & Souza 2253 (N—*isotype*, Z—*type*).

**AEGIPHILA GOELDIANA** Huber & Moldenke

Additional bibliography: A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941; Moldenke, Phytologia 7: 475. 1961; Moldenke, Fifth Summ. 1: 145 (1971) and 2: 846. 1971.

Emended citations: BRAZIL: Pará: Goeldi 8166 (F—601931—*isotype*).

**AEGIPHILA GOUDOTIANA** Moldenke

Bibliography: Moldenke in Fedde, Repert. Spec. Nov. 33: 124—125. 1933; Moldenke, Brittonia 1: 262, 263, 282—283, & 473. 1934; Moldenke, Phytologia 1: 200 & 224. 1937; A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Moldenke, Geogr. Distrib. Avicenn. 18. 1939; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941;

Moldenke, Known Geogr. Distrib. Verbenac., [ed. 1], 30 & 85. 1942; H. N. & A. L. Moldenke, Fl. Life 2: 62. 1948; Moldenke, Known Geogr. Distrib. Verbenac., [ed. 2], 58 & 175. 1949; Moldenke, Résumé 65 & 441. 1959; Moldenke, Fifth Summ. 1: 114 (1971) and 2: 792 & 846. 1971.

I strongly suspect that a re-examination of the type will show that this species is not verbenaceous; probably is a member of the genus Cordia in the Ehretiaceae.

#### AEGIPHILA GRANDIS Moldenke

Synonymy: Aegiphila guyanensis Moldenke, Phytologia 1: 205, syn. in textu. 1937 [not A. guianensis Moldenke, 1933].

Additional bibliography: A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941; Moldenke, Phytologia 13: 326. 1966; Moldenke, Fifth Summ. 1: 114, 121, & 379 (1971) and 2: 846. 1971.

López-Figueira & Rodríguez describe this plant as "Arbol 8--12 m de alto, 15 cm de diámetro DAP; ramificación en el 1/3 superior. Ramas jóvenes subtetrágonas, pubescentes. Hojas simples, opuestas, su coriáceas, verde claro por la haz, más pálidas por el envés, pecioladas, pubescentes. Inflorescencias axilares solitarias; cáliz hipocrateriforme, bilabiado; flores cremosas; fruto drupáceo, negro intenso" and collected it at 2500 meters altitude.

Dr. López-Palacios informs me in a personal communication that the Venezuelan material hitherto regarded as this species uniformly has 4-lobed corollas and 4 stamens and therefore may well represent another species which he is naming in a paper now in press.

Additional & emended citations: COLOMBIA: Cundinamarca: Mutis 2335 (W--1562074), 3657 (W--1560048), 4554 (W--1560063), 4555 (W--1560064).

#### AEGIPHILA GRAVEOLENS Mart. & Schau.

Synonymy: Aegiphila tetragona Mart. ex Moldenke, Phytologia 1: 205, in syn. 1937. Aegiphila graveolens Schau. & Mart. ex Moldenke, Suppl. List Invalid Names [1], in syn. 1941. Aegiphila graveolens Mart. & Schum. ex Moldenke, Phytologia 2: 395, in syn. textu. 1947. Aegiphila graveolens Mart. ex Moldenke, Phytologia 4: 354, in syn. 1953.

Additional & emended bibliography: Schau. in Mart., Fl. Bras. 9: 284, 285, & [309--310]. 1851; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46 & 47. 1893; T. Peckolt, Bericht. Deutsch. Pharm. Gesell. 14: 478. 1904; Moldenke, Brittonia 1: 254, 259, 265, 304--305, 312, 313, 472, & 474--476. 1934; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 46 & 47. 1946; Hill & Salisb., Ind. Kew. Suppl. 10: 5. 1947; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 3, 1: 46 & 47. 1960; Moldenke, Phytologia 13: 326. 1966; Angely, Fl. Anal. Fitogeogr. Est. S. Paulo, ed. 1, 4: 826 & i. 1970; Moldenke, Fifth Summ. 1: 145, 379, & 383 (1971) and 2:



846 & 968. 1971; Moldenke, *Phytologia* 25: 235. 1973.

Peckolt (1904) records this species from the additional Brazilian state of Minas Gerais and says "Volksname (wie mehrerer unangenehm riechender Pflanzen verschiedener Familien): Catinga de bode — Bocksgestank. Die unangenehm riechenden Blätter dieses Bäumchen gestossen also Umschlag bei Erysipelas. Das Dekokt als Waschung gegen Flechten and zu Bädern bei Rheumatismus".

#### AEGIPHILA GUIANENSIS Moldenke

Synonymy: *Aegiphila arborea* Spruce ex Moldenke, *Phytologia* 1: 206, in syn. 1937. *Aegiphila guianensia* Aristeguieta ex Moldenke, Fifth Summ. 1: 379, in syn. 1971.

Additional & emended bibliography: Moldenke, *Brittonia* 1: 268, 340—341, & 474—476. 1934; A. W. Hill, *Ind. Kew. Suppl.* 9: 6. 1938; Fedde & Schust. in Just, *Bot. Jahresber.* 60 (2): 568. 1941; Hill & Salisb., *Ind. Kew. Suppl.* 10: 5. 1947; Moldenke, *Phytologia* 13: 326—327. 1966; Moldenke, Fifth Summ. 1: 114, 121, 128, 145, 378, & 379 (1971) and 2: 846. 1971.

Recent collectors describe this species as a common shrubby tree, 8—10 m. tall, branched near the base, with a large crown, the bark fissured, the leaves papery, dull pale-green or medium-green above, paler beneath, the calyx pale-green, persistent, the fruits ovoid-ellipsoid, orange-red, smooth, slightly glossy, 1-seeded, the pulp orange, and the seeds pale-brown, growing in secondary regrowth at altitudes of 280—1000 meters, flowering in July, August, and October. The corollas are said to have been "whitish" on *Aristeguieta* 3272 and *López-Palacios* 2992 and "white, pale-green at base" on *Breteler* 4512. *López-Palacios* describes the species as "arbol hasta de 12 m., de tallos griseos, los viejos algo fisurados, que se encuentran en terreno disturbado entre los 600 y 1200 m. Hojas hasta de 45 y más cm. Muestra con sólo cálices viejos". The plant represented by his no. 2992 he describes as an "Arbolito ca. de 8 m. Inflorescencias cimosas axilares".

Material has been misidentified and distributed in some herbaria as *A. integrifolia* (Jacq.) Jacks., which it closely resembles and to which the species is certainly closely related.

Additional citations: VENEZUELA: Apure: *Steyermark*, *Bunting*, & *Blanco* 101793 (Ve). Barinas: *Aristeguieta* 3272 (N); *Breteler* 4182 (N, W—2465370), 4512 (N, W—2466144); *López-Palacios* 2749 (Rf). Mérida: *López-Palacios* 2992 (Id).

#### AEGIPHILA HASSLERI Briq.

Synonymy: *Aegiphila hassleriana* Briq. ex Moldenke, *Brittonia* 1: 308, in textu. 1934; *Prelim. Alph. List Invalid Names* 2, in syn. 1940; Michalowski, *Serv. Tecn. Interam. Coop. Agr. Bol.* 189. 1955. *Aegiphilla hassleri* Briq. ex Moldenke, *Phytologia* 4: 390, in syn. 1953. *Aeghiphila hassleri* Briq. ex Moldenke, *Phytologia* 4: 390, in syn. 1953.

Additional & emended bibliography: Briq. in Chod. & Hassler,

Bull. Herb. Boiss., sér. 2, 4: 1167--1168. 1904; Michalowski, Serv. Tecn. Interam. Coop. Agr. Bol. 189. 1955; Rambo, Sellowia 7: 207. 1956; Angely, Fl. Anal. Paran., ed. 1, 579. 1965; Teague, Anal. Mus. Hist. Nat. Montev., ser. 2, 7 (4): 44. 1965; Moldenke, Phytologia 13: 327. 1966; El-Gazzar & Wats., New Phytol. 69: 483 & 485. 1970; Reitz, Sellowia 22: 8. 1970; Moldenke, Fifth Summ. 1: 145, 184, 188, 194, 354, 378, & 379 (1971) and 2: 846. 1971.

Recent collectors describe this species as a shrub, 2.5--3 m. tall, or a small tree, to 4 m. tall, the fruit fleshy, yellowish or cream-yellow, and have found it growing in thickets, in woodlands, along roadsides, and in sandy soil at the edge of woodlands, at altitudes of 180--250 meters, flowering from August to October, fruiting in January, March, May, and December. Montes says of it: "pl. arbusto caducifolio, altura 2.5 m., frutos amarillos cremosos, habitat en matorral denso, lugar alto, escaso". Krapovickas and his associates encountered the plant in "claro en isleta de selva" in Corrientes.

The corollas are said to have been "yellow" on Pedersen 5226 and "yellowish" on Pedersen 9252. The vernacular names, "casita" and "oreja de venado", are reported. Teague (1965) affirms that the wood is used for making boxes, clogs, and cheap furniture.

Material has been misidentified and distributed in some herbaria as A. brachiata Vell. and A. riedeliana Schau.

Additional & emended citations: BRAZIL: Paraná: Lindeman & Haas 534 (N). Rio Grande do Sul: O. Camargo 881 [Herb. Anchieta 59493] (B), 2037 [Herb. Anchieta 62037] (B), 2284 [Herb. Anchieta 62529] (B); Rambo 49479 (B). Santa Catarina: Smith & Reitz 12751 (N). PARAGUAY: Hassler 3193 (F--686670--cotype); Pedersen 3127 (N), 5226 (N); G. W. Teague 528 (Ws). URUGUAY: Arechavaleta 43 (F--686781). ARGENTINA: Corrientes: Krapovickas, Cristóbal, Arbo, Maruffak, Maruffak, & Irigoyen 16879 (Ws); Pedersen 9252 (N). Misiones: J. E. Montes 14784 (N), 14824 (Au, N, N); G. J. Schwarz 1601 (N), 4849 (N).

#### AEGIPHILA HASTINGSIANA Moldenke

Additional bibliography: Hill & Salisb., Ind. Kew. Suppl. 10: 5. 1947; Moldenke, Phytologia 7: 477. 1961; Gibson, Fieldiana Bot. 24 (9): 170--172. 1970; Moldenke, Fifth Summ. 1: 78 (1971) and 2: 846. 1971.

#### AEGIPHILA HAUGHTII Moldenke

Additional bibliography: E. J. Salisb., Ind. Kew. Suppl. 11: 5. 1953; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 703 & 710. 1960; Moldenke, Phytologia 7: 477. 1961; Moldenke, Fifth Summ. 1: 134 & 139 (1971) and 2: 846. 1971; Moldenke, Phytologia 23: 417. 1972.

Schunke describes this species as a shrub, 1--2 m. tall, the leaves pale-green, the sepals and peduncles "de color pardo rojizo", and the immature fruit blue-green. He found the plant growing in high forests, fruiting in January.

Additional citations: PERU: San Martín: Schunke V. 4648 (N).

**AEGIPHILA HERZOGII Moldenke**

Additional bibliography: A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941; Moldenke, Phytologia 13: 327. 1966; Moldenke, Fifth Summ. 1: 181 (1971) and 2: 846. 1971.

Paredo encountered this plant at 425 meters altitude, flowering in April. The corollas are said to have been "yellow" on Paredo 514.

Additional & emended citations: BOLIVIA: Santa Cruz: Paredo 514 (N); J. Steinbach 3259 (B, F-552945, Z--photo).

**AEGIPHILA HIRSUTA Moldenke**

Additional bibliography: A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 703 & 710. 1960; Moldenke, Phytologia 7: 477. 1961; Moldenke, Fifth Summ. 1: 181 (1971) and 2: 846. 1971.

Macbride (1960) asserts that this species "no doubt" occurs in Peru, but he cites no substantiating specimens. He affirms that it "Ex char. resembles A. ovata but (on the basis of a single collection) internodes 5-6 cm. long in contrast to 7.5-14.5 cm., petioles about 5 mm. long, leaves more oblong, 6.5-13.5 cm. long, 2.5-5 cm. wide, lustrous, secondary nerves 8-11 pairs, peduncles about 4 cm. long, inflorescence apparently only terminal, 11.5 cm. long, 4 cm. wide; however, the inflorescence of A. ovata was imperfectly known, and according to the author the type of A. hirsuta was far too immature to permit accurate measurements of floral parts."

Emended citations: BOLIVIA: La Paz: Buchtien 1715 (W-1399499-type).

**AEGIPHILA HIRSUTA var. COLOMBIANA Moldenke**

Additional bibliography: J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 710. 1960; Moldenke, Phytologia 7: 478. 1961; Moldenke, Fifth Summ. 1: 114 (1971) and 2: 846. 1971.

Macbride (1960) says "The var. colombiana Mold....., from Putumayo near Peru is of course more widely distributed, but the tree may be referable to A. ovata Mold., the apparent differences certainly within the range of expected variation."

**AEGIPHILA HIRSUTISSIMA Moldenke**

Additional bibliography: A. W. Hill, Ind. Kew. Suppl. 9: 6. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 568. 1941; Moldenke, Phytologia 13: 327 & 334. 1966; Moldenke, Résumé Suppl. 16: 3. 1968; Moldenke, Fifth Summ. 1: 89, 114, & 121 (1971) and 2: 846. 1971; Moldenke, Act. Bot. Venez. 6: 94. 1972.

Duke and Bristan describe this plant as a small tree, with soft wood and green fruit.

Additional & emended citations: PANAMA: San Blas: Duke & Brittan 351 (Oh). COLOMBIA: Chocó: Killip & García 33563 (W—1770487). VENEZUELA: Miranda: H. Pittier 8257 (W—988357—type, W—988358—isotype).

AEGIPHILA HOEHNEI Moldenke ex Hoehne, Resen. Hist. Secc. Bot. Agron. Inst. Biol. S. Paulo 153, hyponym. April 1937; Moldenke, Phytologia 1: 224—226. June 14, 1937.

Additional bibliography: Hill & Salisb., Ind. Kew. Suppl. 10: 5. 1947; Moldenke, Phytologia 7: 478. 1961; Moldenke, Résumé Suppl. 16: 3 & 4. 1968; Moldenke, Fifth Summ. 1: 145 (1971) and 2: 846. 1971.

Hill & Salisbury (1947) regard Hoehne's original publication of this binomial as a nomen nudum, but he clearly cites the type collection, so the name is actually a hyponym at that point.

AEGIPHILA HOEHNEI var. PUYENSIS Moldenke

Additional bibliography: Moldenke, Phytologia 7: 478. 1961; Moldenke, Fifth Summ. 1: 134 (1971) and 2: 846. 1971.

Additional citations: ECUADOR: Napo—Pastaza: Asplund 19426 (N).

AEGIPHILA HOEHNEI var. SPECTABILIS Moldenke

Additional bibliography: Moldenke, Phytologia 7: 478. 1961; Moldenke, Résumé Suppl. 16: 3 & 4. 1968; Moldenke, Fifth Summ. 1: 89 & 114 (1971) and 2: 846. 1971.

Recent collectors describe this plant as a vine or sprawling shrub, 7 feet tall, with dull-yellow fruit, and have found it growing in forests at 2700—3100 feet altitude, flowering in July and August, and fruiting in January. The corollas are said to have been "white" on S. M. V. Hayden 1003 and "yellow" on Tyson, Dwyer, & Blum 4342. The plant bears striking resemblance to A. cordata var. colombiana Moldenke. Material has been misidentified and distributed in some herbaria under the names A. cephalophora Standl. and "A. cephalophora Moldenke".

Additional citations: PANAMA: Panamá: Dwyer & Gentry 9456 (N); S. M. V. Hayden 1003 (E—1893974, W—2545870); Tyson, Dwyer, & Blum 4342 (E—1844296, Z).

AEGIPHILA HOFFMANNIOIDES Standl. & Steyermark.

Additional & emended bibliography: Standl. & Steyermark., Field Mus. Publ. Bot. 23: 227—228. 1947; E. J. Salisb., Ind. Kew. Suppl. 11: 5. 1953; Moldenke, Phytologia 4: 381. 1953; Moldenke, Fifth Summ. 1: 78 (1971) and 2: 846. 1971; Moldenke, Phytologia 23: 427. 1972.

It has recently been suggested that this species is actually not a member of the genus Aegiphila nor anything verbenaceous, but is conspecific with Hoffmannia lenticellata Hemsl. in the Rubiaceae. In a letter to me Dr. Steyermark assures me that he will re-investigate this matter and will report to me on it at a later date. Obviously, from the specific epithet chosen, He and Stand-



ley originally noted the resemblance to Hoffmannia but decided that the floral characters were those of Aegiphila. Certainly from what can be seen of the floral characters on a photograph of the type in the New York Botanical Garden herbarium, the characters resemble those of an Aegiphila far more than they do those of a Hoffmannia. We shall await Dr. Steyermark's report with interest.

#### AEGIPHILA INSIGNIS Moldenke

Additional bibliography: A. W. Hill, Ind. Kew. Suppl. 9: 6 & 204. 1938; Fedde & Schust. in Just, Bot. Jahresber. 60 (2): 569. 1941; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 710—711 & 716. 1960; Moldenke, Phytologia 7: 478—479. 1961; Moldenke, Fifth Summ. 1: 139 (1971) and 2: 593 & 846. 1971.

Macbride (1960) asserts that this species is "in all probability" the same as A. pulcherrima Moldenke.

AEGIPHILA INTEGRIFOLIA (Jacq.) Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46 & 386 [as "Jacq."]. 1893; Moldenke, Brittonia 1: 337. 1934.

Additional & emended synonymy: Callicarpa integrifolia Jacq., Enum. Syst. Pl. 12. 1760 [not C. integrifolia Champ., 1890, nor Forbes & Hemsl., 1932, nor L., 1772]. Manabea arborescens Aubl., Hist. Pl. Guian. 1: 64—65, pl. 24. 1775. Aegiphila arborescens Aubl. apud J. F. Gmel. in L., Syst. Nat., ed. 13, pr. 1, 2: 259. 1789. Aegiphila arborescens Lam., Tabl. Encycl. Méth. Bot. 1: 294. 1792. Aegiphila arborescens Vahl, Eclog. Amer. 1: 15—16, pl. 10. 1796; Pers., Syn. Pl. 1: 132. 1805. Aegiphila arborescens Willd., Linn. Sp. Pl. 1: 616. 1797; Roem. & Schult. in L., Syst. Veg., ed. 15 nova, 3: 10. 1818. Callicarpa globiflora Ruiz & Pav., Fl. Peruv. & Chil. 1: 49—50, pl. 77b. 1798. Manabaea arborescens Aubl. apud Steud., Nom. Bot., ed. 1, 1: 16. 1821. Aegiphila arborescens H.B.K. apud Cham., Linnaea 7: 110, in textu. 1832. Aegiphila arborescens Vahl apud Steud., Nom. Bot., ed. 2, 1: 29. 1840. Callicarpa discolor Willd. ex Steud., Nom. Bot., ed. 2, 1: 29, in syn. 1840. Aegiphila arborescens f. breviflora Schau. in A. DC., Prodr. 11: 650. 1847. Aegiphila arborescens f. mascula & breviflora Schau. in Mart., Fl. Bras. 9: 282. 1851. Aegiphila arborescens f. foemina & breviflora Schau. in Mart., Fl. Bras. 9: 282. 1851. Aegiphila integrifolia Jacq. apud Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46. 1893. Aegiphila arborescens (Aubl.) Vahl apud H. H. Rusby, Mem. Torrey Bot. Club 4: 245. 1895. Aegiphila arborescens (Aubl.) Gmel. apud Moldenke, Brittonia 1: 337, in syn. 1934. Aegiphila arborescens var. breviflora Schau. apud Moldenke, Brittonia 1: 337, in syn. 1934. Aegiphila arborescens Jacq. ex Moldenke, Brittonia 1: 337, in syn. textu. 1934; Prelim. Alph. List Invalid

Names [1], in syn. 1940. Aegiphylla discolor Willd. ex Augusto, Fl. Rio Grande do Sul 236. 1946. Aegiphylla integrifolia Jacq. ex Augusto, Fl. Rio Grande do Sul 236. 1946. Aegiphila arboreucae Veloso, Mem. Inst. Oswaldo Cruz 44: 335. 1946. Aegiphila intermedia (Aubl.) Moldenke, Phytologia 4: 394, in obs. 1953 [not A. intermedia Moldenke, 1933]. Callicarpa globifera J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 711, sphalm. 1960. Manabca arboreascens Aubl. apud J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 711, sphalm. 1960. Aegiphila integrifolia (Jacq.) Jack ex Rennó, Levant. Herb. Inst. Agron. Minas 149, sphalm. 1960. Aegiphyla integrifolia (Jacq.) Jacks. ex Moldenke, Résumé Suppl. 16: 14, in syn. 1968. Aegiphila integrifolia (Jacq.) Jacq. apud Angely, Fl. Anal. Fitogeogr. Est. S. Paulo, ed. 1, 4: 827. 1970. Aegiphila integrifolia "Jacq. ex Hook. & Jacks.", in herb.

Additional & emended bibliography: Jacq., Enum. Syst. Pl. 12. 1760; Jacq., Select. Stirp. Amer. Hist. 15, pl. 173. 1763; Aubl., Hist. Pl. Guian. 1: 64—65, pl. 24. 1775; J. F. Gmel. in L., Syst. Nat., ed. 13, pr. 1, 2: 246 & 259. 1789; Lam., Tabl. Encycl. Méth. Bot. 1: 294. 1792; J. F. Gmel. in L., Syst. Nat., ed. 13, pr. 2, 2: 246 & 259. 1796; Vahl, Eclog. Amer. 1: 15—16, pl. 10. 1796; Raeusch., Nom. Bot., ed. 3, 37. 1797; Willd., Linn. Sp. Pl. 1: 616 & 621. 1797; Ruiz & Pav., Fl. Peruv. & Chil. 1: 49—50 & 73, pl. 77b. 1798; Turton, Gmel. Gen. Syst. Nat. 5: 219. 1802; Pers., Syn. Pl. 1: 132. 1805; H. C. Andr., Bot. Rep. 9: 578. 1809; Poir., Encycl. Méth. Suppl. 1: 150 (1810) and 2: 33. 1811; Pers., Sp. Pl. 1: 339 & 342. 1817; H.B.K., Nov. Gen. & Sp. Pl., ed. folio, 2: 203 (1817) and ed. quarto, 2: 251. 1818; Roem. & Schult. in L., Syst. Veg., ed. 15 nova, 3: 10, 95, 96, 101, & [535] (1818) and ed. 15 [Stuttg.], 3: 96 & 101. 1818; Steud., Nom. Bot. Phan., ed. 1, 16 & 137. 1821; Willd., Nom. Bot., ed. 2, 82. 1821; Kunth, Syn. Pl. 2: 43—44. 1823; Cham., Linnaea 7: 110. 1832; Benth., Ann. Nat. Hist. 2: 449. 1839; D. Dietr., Syn. Pl. 1: 429. 1839; Paxt., Pock. Bot. Dict., ed. 1, 8. 1840; Steud., Nom. Bot., ed. 2, 1: 29. 1840; Walp., Repert. Syst. Bot. 4: 122. 1845; Schau. in A. DC., Prodr. 11: 649. 1847; M. R. Schomb., Reisen Brit.-Guian. 3: [Vers. Fauna & Fl. Brit.-Guian.] 959 & 1150. 1848; Paxt., Pock. Bot. Dict., ed. 2, 8. 1849; Jacques & Hérincq, Man. Gén. Pl. Arb. & Arbust. [Fl. Jard. Eur. 3:] 504. 1850—1853; Schau. in Mart., Fl. Bras. 9: 281—282 & [309]—311. 1851; Griseb., Fl. Brit. W. Ind. 499. 1861; Bocq., Adansonia, ser. 1, 2: 109 & 154 (1862) and 3: 190, pl. 9, fig. 12—14. 1863; Bocq., Rév. Verbenac. 109, 154, 190, & 264, pl. 9, fig. 12—14. 1863; Pritz., Icon. Bot. Ind. 1: 23. 1866; Hereman, Paxt. Bot. Dict. 13. 1868; Warming, Symb. Fl. Bras. Cent. 23: 712. 1877; Hemsl., Biol. Cent. Am. 2: 538. 1882; Warming, Lagoa Santa 434. 1892; Donn. Sm., Bot. Gaz. 18: 7. 1893; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 1, 1: 46 & 386 (1893) and pr. 1, 2: 160. 1894; Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 166. 1895; H. H. Rusby, Mem. Torrey Bot. Club 4: 245. 1895; H. H. Rusby, Bull. Torrey Bot. Club 27: 81. 1900; T. Peckolt, Bericht.

Deutsch. Pharm. Gesell. 14: 478. 1904; Glaz., Bull. Soc. Bot. France 58 [ser. 4, 11], Mém. 3: 546. 1911; Usteri, Fl. Umgeb. Stadt São Paulo 228. 1911; Donn. Sm., Bot. Gaz. 57: 426. 1914; Herzog, Meded. Rijksherb. Leid. 29: 48. 1916; Stapf, Ind. Lond. 1: 79 & 526 (1929) and 4: 217. 1930; Junell, Symb. Bot. Upsal. 4: 82 & 83. 1934; Moldenke, Phytologia 1: 226—228 (1937) and 1: 292. 1938; Moldenke, Lilloa 4: 317. 1939; Moldenke, Phytologia 1: 390 (1940) and 2: 90. 1944; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 2, 1: 46 & 386 (1946) and pr. 2, 2: 160. 1946; H. P. Veloso, Mem. Inst. Oswaldo Cruz 44: 267 (1946) and 45: 22. 1947; Daniel, Verb. Cent. Antioq. 7. 1947; Moldenke, Phytologia 2: 397—398 (1947) and 2: 436. 1948; F. C. Hoehne, Ind. Bibl. Num. Pl. Col. Com. Rondon 346. 1951; Greig-Smith, Journ. Ecol. 40: 294 & 307. 1952; Moldenke, Inform. Mold. Set 54 Spec. [1]. 1956; Jacks. in Hook. f. & Jacks., Ind. Kew., pr. 3, 1: 46 & 386 (1960) and pr. 3, 2: 160. 1960; J. F. Macbr., Field Mus. Publ. Bot. 13 (5): 702, 705, & 711—712. 1960; Moldenke, Phytologia 13: 328, 336, 340, 428, & 476 (1966) and 14: 244 & 245. 1967; Moldenke, Résumé Suppl. 14: 6 (1966), 15: 4 (1967), and 16: 4 & 14. 1968; J. A. Steyerl., Act. Bot. Venez. 3: 156. 1968; Angely, Fl. Anal. Fito-geogr. Est. S. Paulo, ed. 1, 4: 827 & 1, map 1368. 1970; Dennis, Kew Bull. Addit. Ser. 3: 258. 1970; Oberwinkler, Pterid. & Sperm. Venez. 9 & 78. 1970; Moldenke, Fifth Summ. 1: 89, 111, 114, 121, 128, 133, 134, 139, 145, 181, 354, 378, 380, & 384 (1971) and 2: 407—410, 570, & 846. 1971; Moldenke, Phytologia 22: 28, 281, & 290 (1971), 23: 427 (1972), and 25: 235, 236, & 241. 1973.

Illustrations: Vahl, Eclog. Amer. 1: pl. 10. 1796; Ruiz & Pav., Fl. Peruv. & Chil. 1: pl. 77b. 1798; Bocq., Adansonia, ser. 1, 3: [Rév. Verbenac.] pl. 9, fig. 12—14. 1863.

Recent collectors describe this plant as a shrub or vining shrub, 1—4 m. tall, or a small tree, 3—6.5 m. tall, with a trunk diameter to 5 cm., the wood light in weight, the stems square, the leaves papery or membranous, dull-green or dull pale-green, paler green beneath, the flowers fragrant, the calyx pale- or gray-green, the anthers brown, and the fruit red. They have found it growing in high woods and in secondary regrowth. The corolla is said to have been "white" on Schunke V. 1796, Stern, Chambers, Dwyer, & Ebinger 663, and Steyermark & Bunting 102796 and "dirty-white" on Breteler 4905. Macbride (1960) reports that the plant may be "Sometimes 12 meters tall, trunk 3 cm. in diameter, rough gray bark". He cites Sandeman 3676 and Scolnik 903 from Cuzco, Macbride 5053, Ruiz & Pavon s.n., and Spruce 1616 from Huánuco, Killip & Smith 26239 from Junín, Castelnau s.n., Klug 108, Schunke 343, and Ll. Williams 2052, 2328, 2583, & 2795 from Loreto, McCarroll 94 and Metcalf 30667 from Puno, and Klug 3468 from San Martín, Peru. He gives its overall distribution as "To Colombia, Bolivia and Trinidad". In addition to the months previously reported by me, the species has been collected in anthesis in April and December and in fruit in September.

Peckolt (1904) records this species from the additional Brazilian state of Alagoas, and records the vernacular names, "paó molle" and "paó de veretas", which he translates as "weiches Holz" and "Ladestockbaum". He comments that "Das weisse, leicht zu schnitzende Holz wird zu verschiedenen häuslichen Gerätschaften benutzt, die Zweige zu Ladestöcken, Ruten usw. Es ist mir nicht bekannt, ob die Art arzneilich benutzt wird." Lamarck (1792) calls it "aegiphile arborescent". His 1791 work is often cited as "Lam. Illustr. 1503", but that is using a subtitle and a species (not page) number.

Dennis (1970) records the fungus, Meliola cookeana var. aegiphilae (Stev.) Hansf., from this species as host.

It should be noted here that the H.B.K. reference dates given in the emended bibliography above have been authenticated by the late eminent botanical biographer and bibliographer, Dr. J. H. Barnhart (1902). The Lamarck (1792) reference is sometimes incorrectly cited as "Lam. Illustr. 2. p. 594." The species is not mentioned on that page.

Schauer (1847) plainly designates his two infraspecific taxa, "longiflora" and "breviflora", as forms (not varieties), saying "Flores diclini, magnitudine ac figura duplici forma obvi", even though he precedes the epithets with Greek letters. His f. breviflora is characterized by him as follows: "♂: Cal. 3 lin. longus. Cor. infundibularis, tubo calycem vix aequante vel paulo excedente, limbi laciniis lanceolatis 2 lin. longis reflexis. Stamina limbo sesquialongiora. ♀: Cal. turbinato-campan. 2 1/2 lin. long. Cor. calycem limbo exiguo superans, antheras tabescentes brevistipitatas infra fauces gerens. Stylus longe exsertus." In contrast, his f. longiflora [which I regard as A. bracteolosa Moldenke] is described as "♂: Cal. 4 fere lin. longus. Cor. tubo gracili 5—6 lin. metiente laciniis lanceolatis lineâ paulo longioribus reflexis. Stam. limbum duplo excedentia. Stylus inclusus. ♀: Cal. et cor. maris. Antherae abortivae, breviter stipitatae, fauci cor. inclusae. Stylus capillaris cruribus exsertis." In his 1851 work he modifies the description of the taxon only slightly, but reduces it to subform rank. He does not divide his specimen citations into the two infraspecific groups, citing merely for the species as a whole: Blanchet 2121 ["forma foliis subtus pube lanuginosa incanis"], Martius s.n. [Barra] and s.n. [Porto dos Miranhas], and Poeppig 1615 from Brazil, Schomburgk 404 from Guyana, Herb. Gen. Berol. s.n. from Trinidad, Humboldt & Bonpland s.n. from Venezuela, and Ruiz s.n. from Peru. Schomburgk 404 appears to be a mixture with A. guianensis Moldenke, while the two Martius collections are A. bracteolosa Moldenke.

The Callicarpa integrifolia Champ. and C. integrifolia Forbes & Hemsl., referred to in the synonymy above, are synonyms of C. integerrima Champ., while the homonym accredited to Linnaeus belongs in the synonymy of C. tomentosa (L.) Murr.

[to be continued]